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ABSTRACT

This study, part of an ongoing effort to determine the future structure of secondary education in Northern Ireland, surveys teacher attitudes on the organization of secondary education. Questionnaires were sent to a sample of primary, secondary, and higher education teachers. Teacher opinion was divided most strongly with regard to the present bipartite system of selective grammar and non-selective secondary schools, irrespective of whether selection for the former took place at age 11 or two years later. Teachers were least attracted toward any form of a wholly non-selective system. The three alternatives which proved most popular with all teachers were a system of 11-16 comprehensive schools followed by transfer to separate academic sixth form and technical colleges, a system of 11-16 comprehensive schools followed by transfer to sixth-form colleges providing both academic and vocational courses, and a two-tier system of junior and senior high schools with selective transfer at age 14+. Since it was clear that those teachers who favored one type of sixth-form college structure also favored the other, it can be concluded that within each of the three sectors, as well as overall, popular choice lay between a structure based on selective transfer at age 14+ and a structure based on academic/vocational transfer at 16+. (Author/RM)

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THE ORGANISATION OF SECONDARY EDUCATION

Report of an enquiry among teachers in primary, secondary and further education in the Spring term of 1976.

BY

J.A. Wilson
and
B.J. Spelman

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for

Educational Research

FOREWORD

I have been asked, as Chairman of both the Steering Committee and of NICER's Research and Publications Committee, to write a short foreword to this Report. The project has been under active consideration since the Autumn of 1974, though the Steering Committee first met on 13 May 1975. It is largely fortuitous that the enquiry has been completed and submitted to the Department of Education (Northern Ireland) in time to meet the deadline of 7 April 1977 for comments on its Consultative Document on the *Reorganisation of Secondary Education in Northern Ireland*. Readers of this Report will clearly perceive that the enquiry to which it relates is an independent, if possibly complementary, one to the feasibility study carried out by the Department of Education (Northern Ireland). But the subject is a topical one; and if this enquiry serves to throw fresh light on the issues involved or to make a slight contribution to the future development of schooling in Northern Ireland, the Steering Committee and the Research Council will be more than satisfied.

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PART 1: INTRODUCTION AND BACKGROUND

Under the Northern Ireland Education Act of 1947 provision was made for a post-primary school structure of grammar, secondary intermediate and technical intermediate schools. Nevertheless, in the school year 1951-52 some 60 per cent of 13-year-olds pupils, all of whom were of secondary school age, were still enrolled in unreorganised primary schools, as against 10 per cent in secondary intermediate schools, 6 per cent in technical intermediate schools, and 24 per cent in grammar schools. The most notable change in the organisation of secondary education in the late 1950's and early 1960's was therefore the phasing out of the technical intermediate schools and the emergence of a bipartite system of selective grammar and non-selective secondary schools. Thus, in the school year 1971-72 some 73 per cent of 13-year-olds were enrolled in non-selective secondary schools, as against 27 per cent in grammar schools. The former percentage by then included pupils in the Craigavon area junior high schools, pupils in a dozen or so area bilateral schools, and pupils in the two Belfast Model schools.

However, this period was also characterised by a number of local attempts to introduce a degree of flexibility into the system. McNeilly (1973), for example, has described how the Belfast Education Committee and its Director of Education, Dr Stuart Hawnt, tried to modify the tripartiteism of the 1947 Act by proposing, in 1953, a system of combined schools which would provide both grammar and intermediate type education. When that proposal was not accepted by the Ministry of Education, the Director of Education introduced a plan for a system of common secondary schools for pupils up to school leaving age, followed by senior high schools, based on existing grammar schools, for pupils wishing to continue their education beyond the compulsory school leaving age. The plan was rejected by the then Minister of Education as 'being out of harmony with the traditions of our people'. Instead, it was replaced by a policy of admitting a proportion of qualified pupils to the Belfast Model schools.

In the same period, from 1953 onwards, the Belfast Committee and its Director held out strongly against Ministry of Education pressure to introduce separate technical intermediate schools into Belfast. Instead, the Committee encouraged the development of technical courses in certain of its secondary intermediate schools. By 1957 the Ministry had approved of this development, and in 1961 it took the decision to phase out all technical intermediate schools in the province. This decision, and the 1960 report of the Johnston Committee, which broadened the scope of external examinations permitted to secondary intermediate schools, have been described by Donaghy (1970) as milestones in the disintegration of the rigid tripartiteism of the 1947 Act.

Further initiatives of a quasi-comprehensive nature throughout this period resulted in the emergence of a number of bilateral secondary schools in rural areas of the province such as Kilkeel, Fivemiletown and Maghera. These schools, while designated as secondary (intermediate) schools, were described in an address by the Permanent Secretary to the Ministry of Education (1969) as reasonably claiming to be comprehensive in the sense that their intakes were not based on selection and that they provided courses for all ranges of ability.

Such developments foreshadowed a climate of opinion which found expression in the 1964 Government White Paper, *Educational Development in Northern Ireland*, where, for the first time, bipartiteism as an organisational policy for secondary education was officially put in question.

The White Paper pointed out that continuing criticism of the Qualifying Examination as the means of selecting children for a grammar school education raised the problem of whether the existing system of education should be continued or replaced by a new system based on some form of comprehensive school. It emphasised, however, that the Government did not intend to reconstruct the whole secondary school system on comprehensive or quasi-comprehensive lines in order to dispense with external selection at 11+, but instead would actively encourage developments in secondary school organisation in order to

reduce the importance of selection. It referred to the increasing number of intermediate schools offering GCE courses, and the growth of bilateral schools in certain areas. It drew attention to the Leicestershire two-tier model of junior and senior high schools as a promising line of advance, and suggested that technical high schools associated with institutions of further education might be useful alternatives to the academic senior high school at the completion of the junior high school course. A sixth-form college structure was mentioned as another possible alternative. However, the Paper stressed that the Ministry would prefer that a non-selective pattern of secondary education should evolve gradually by common consent from existing provision than that it should attempt to impose, in a single operation, an inflexible system of comprehensive schools. In the meantime, it was proposed that steps should be taken to lessen differences between intermediate schools and grammar schools by encouraging the development of academic courses in the former, henceforth to be referred to as secondary schools, and by removing disparities in staffing ratios between the two types of school.

The 1964 report of the Fifth Advisory Council for Education, *Secondary School Organisation*, concluded that it would be unreasonable to insist on a uniform system of secondary school organisation throughout the province, whether selective or non-selective. Instead, it recommended that in areas of development, such as the new city of Portadown/Lurgan, the Ministry should be asked to encourage the local education authority and voluntary authorities to consider the possibility of dispensing with selection by providing common secondary schools which would offer a full secondary course to all children of the area, or schools within a two-tier system like that established in Leicestershire. In the following year, 1965, the Director of Education for County Armagh presented to his Education Committee a framework for the reorganisation of secondary education in the new city area of Craigavon. This was based on a two-tier system of comprehensive education, and subsequently came to be known, after its proposer, as the Dickson Plan.

As a result of this and other developments in the 1960's, the 1970 Report of the Ministry of Education, *Education in Northern*

Ireland in 1970, drew attention to the striking changes in the structure of secondary schools, affecting both county and voluntary schools, which were taking place in the Craigavon area. The Report also listed seven areas where bilateral schools had been officially recognised, and pointed out that the two Belfast Model Secondary schools had for many years provided, with the Ministry's approval, courses for one or two streams of qualified pupils. The few studies which have taken account of these developments, whether from an historical or empirical perspective, have been reviewed by Spelman (1975).

The 1964 White Paper had drawn attention to criticisms of the then basis of selection, the Qualifying Examination, as subjecting children to undue strain and as having a serious backwash effect on the curriculum and teaching methods of the primary schools. As a result, the Qualifying Examination in English and arithmetic was replaced in 1966 by the Selection Procedure, which combined children's verbal reasoning scores with teachers' scaled estimates of their suitability for a grammar school education.

The administration of the new Selection Procedure had been discussed and detailed in the 1964 report of the Fifth Advisory Council. The Seventh Advisory Council, in its 1971 report, *The Existing Selection Procedure for Secondary Education in Northern Ireland*, concluded that, subject to certain detailed improvements, the Procedure was the best instrument of selection then available. At the same time, the Council expressed grave disquiet regarding the principle of selection, and announced that it had initiated a study of the possible application of alternative forms of school organisation to Northern Ireland.

In its 1973 report, *Reorganisation of Secondary Education in Northern Ireland*, the Seventh Advisory Council recommended that the Minister of State should make a declaration of intent to eliminate the need for selection as soon as possible through a restructuring of the educational system. It also recommended that steps should be taken as a matter of urgency to prepare development plans for non-selective secondary schools in each education authority area. It examined in detail the advantages and disadvantages of various forms

of school structure, including the prevailing bipartite system, a middle school structure, a two-tier system, and an all-through 11-18 comprehensive school structure. It concluded that in the large number of memoranda submitted to the Advisory Council calling for a change towards a comprehensive system there was little evidence as to the type of alternative preferred. It therefore suggested that the best form of restructuring would be one adapted to the needs of individual localities and one which would make most effective use of existing facilities.

In a Note of Dissent four of the sixteen members of the Seventh Advisory Council registered their concern at some of the Report's conclusions and recommendations. They outlined the case for the voluntary grammar schools continuing to be accorded a measure of independence within the state system. While accepting the Report's recommendations that decisions on suitable forms of secondary education should be taken as late as possible, they did not subscribe to the abolition of all forms of selection procedure. Instead, they concluded that the province might best be served by promoting a variety of educational institutions with extended and improved use of systems of transfer between grammar schools, other secondary schools and technical colleges.

The Advisory Council's report appeared in February 1973. Two years later, in February 1975, the Minister of State for Education announced the instigation of a feasibility study into forms of secondary reorganisation to be conducted by the Senior Chief Inspector on behalf of the Department of Education. This investigation was not to be concerned with the theoretical arguments for and against reorganisation, but with the actual practicalities and possibilities of its implementation within the present buildings.

In July 1976 the Department of Education issued its Consultative Document, *Reorganisation of Secondary Education in Northern Ireland*. The Document included a report on the Department's feasibility study which outlined, in some detail, how the majority of post-primary schools in the province might be adapted to a structure in which non-selective 11-16 schools would co-exist with non-selective 11-18 schools, but with

the latter recruiting from the former at sixth-form level. The Document also emphasised the part played by voluntary schools in Northern Ireland and the extent to which any system of comprehensive schooling would be dependent on the voluntary sector. It stressed that a new system must be planned to fit in with local circumstances, and it suggested that the two-tier system developed in the Craigavon area might remain as such except that selection at 14+ should be replaced by choice and that the senior high schools should become comprehensive 14-18 schools.

At the same time, the Document pointed out that the Government was not at that stage committed to any particular policy. It underlined the importance that would be attached to the views and advice that it would collect following the issuing of the Document. It called for widespread public discussion of the suggestions and ideas put forward, and invited individuals, as well as those organisations and bodies closely concerned, to send their contributions to the Department not later than January 1977. This final date for the submission of contributions was subsequently extended until April 1977.

THE NATURE OF THE ENQUIRY

The present enquiry was first proposed in late 1974, when the Council was discussing its future research programme in the field of secondary education. The decision to sample the views of teachers with regard to the organisation of secondary education stemmed directly from the 1973 Report of the Advisory Council, *Reorganisation of Secondary Education in Northern Ireland*. It was agreed that further debate on the future structure of secondary education would benefit from a representative survey of teacher opinion on the issues raised in that Report.

The decision to sample teachers' views by means of a structured questionnaire was endorsed by the Steering Committee which was set up in 1975 to assist the project through the planning stages. The first drafts of the questionnaire were subjected to the critical

scrutiny of the Steering Committee, and revised on the basis of Committee recommendations. At the next stage the questionnaire was submitted for comment to members of the Inspectorate and members of staff in the colleges of education, the Ulster Polytechnic and the University departments of education. In its final form it was completed by, and then discussed with, the staffs of two large schools, one a grammar and one a secondary school. This was regarded as a crucial test of acceptability, though in the event criticisms were few. However, considerable interest was expressed in these schools both with regard to the enquiry and the contents of the questionnaire.

The final version of the questionnaire, as used in the survey and as reproduced in Appendix A, consisted of an introduction which set out the purpose and the origins of the enquiry together with instructions for completing the five main sections. The first of these sections, 'The Present System', consisted of 21 attitude-type statements to which teachers were asked to respond by indicating their strength of agreement-disagreement on a five-point scale. The second section, 'Organisational Alternatives' consisted of 20 statements, and the third section, 'Purposes and Processes in Secondary Education', consisted of 25 statements. The statements presented in the first section were based largely on the arguments considered in the Advisory Council Report in relation to the present bipartite system of grammar and secondary (intermediate) schools, the Selection Procedure, the Review Procedure, and fee-paying in grammar schools. Statements in the second section took account of the Advisory Council's summary of the advantages and disadvantages of alternative structures for child development, teacher resources, teaching methods and equipment, and the adaptability of existing school buildings.

The first two sections were concerned, like the 1973 report of the Advisory Council, with practicalities. By contrast, the third section, 'Purposes and Processes in Secondary Education', turned to philosophical or ideological issues to which varying degrees of importance have been attached in the debate on the nature and organisation of secondary education. For example, attention was given to the objectives of secondary education, the relationship between school,

community and society, and coeducation and religious integration as issues in the debate on comprehensive education.

The fourth section, 'Preferred Structure of Secondary Education', listed nine alternative forms of secondary school organisation with instructions as to how these should be ranked in order of preference from one to nine. The nine alternatives were chosen to represent the existing bipartite system of grammar and secondary (intermediate) schools with selection at 11+, the development of different forms of school organisation in relation to local needs and provision, an 11-18 all-through comprehensive school system, selective and non-selective variants of both a middle school system and a two-tier system of junior and senior high schools, and two forms of sixth-form college structure.

The final section, 'Biographical Details', asked for details of the respondent's past and present experience as a teacher. It was pointed out that, while individual responses would be treated in absolute confidence, the additional biographical information was required in order to present the findings of the survey as a representative spectrum of teacher opinion.

CONDUCT OF THE SURVEY

The survey was carried out in the schools in the Autumn and Spring terms of the school year 1975-76. The sample of teachers to be surveyed was established by firstly determining the sample of schools, and then asking all full-time teachers, including the principals in each of these schools, to take part in the survey. This method of selecting teachers from a pre-determined sample of schools was preferred to that of selecting individuals from the population of teachers irrespective of school. Quite apart from ensuring the participation of marginal groups of teachers of particular interest to the enquiry, this sampling strategy facilitated the distribution and return of completed questionnaires by schools as units once the co-operation of the principal had been obtained.

From the outset of the investigation it was decided that schools should be sampled in such a way as to provide adequate teacher samples for certain schools which were in a minority but which, because of their organisational characteristics, were seen to be important from the point of view of the enquiry. Thus a one-in-ten probability sample of primary schools, a one-in-five probability sample of secondary (intermediate) schools, a one-in-five probability sample of grammar schools, and a one-in-three probability sample of colleges of further education were thought sufficient for the needs of the enquiry. However, six out of thirteen junior high schools were also included, together with three out of three senior high schools from the Craigavon area, and six out of ten secondary schools defined as bilateral. This last category of schools was established by a preliminary survey of the intake characteristics of pupils to post-primary schools over a three-year period. On the basis of this survey a bilateral school was defined as a secondary school, other than a grammar school, with a minimum ten per cent of pupils qualified on intake or a minimum of sixty per cent of pupils not having been entered for the Selection Procedure. This category included the two Belfast Model Schools as well as a number of rural schools.

In all but the smallest primary schools the principal was sent a copy of the questionnaire with a request for permission to have it distributed, either by the principal or a named representative, to members of staff. If the response was favourable, the principal or representative was sent sufficient copies for all members of staff, together with instructions for the distribution, completion, collection and return of the questionnaire. Teachers were asked to complete the questionnaire in full without consulting colleagues, seal it in the envelope provided, and then hand it to the teacher representative for return to the Research Unit. The representative also completed a record of the number of teachers on the staff, the number of questionnaires distributed, and the number of completed returns. All of this information is summarised by school type in Table 1.1. In this and certain other tables throughout the report school type is abbreviated as follows: Primary (P), Secondary (intermediate) (SI), Grammar (G), Junior High (JH), Senior High (SH), Bilateral (BL), and College of Further Education (FE).

Table 1.1: Target and Achieved Samples of Schools and Teachers

		P	SI	G	JH	SH	BL	FE
Schools	Population	1,109	157	65	13	3	10	31
	Target Sample	109	32	17	6	3	6	11
	Achieved Sample	92	31	17	6	3	6	11
Teachers	Population	8,013	5,009	3,024	348	94	524	1,420
	Target Sample	830	986	655	173	94	263	663
	Distrib. Sample	745	958	644	167	93	258	653
	Achieved Sample	724	670	524	155	83	180	458
Achieved sample of teachers as percentage of target sample		87	68	80	90	88	68	69
Achieved sample of teachers as percentage of population		8	13	17	45	88	34	32

In the interests of sampling efficiency certain other constraints which do not appear in Table 1.1 were imposed on the sampling procedure. Thus, both primary schools and colleges of further education were stratified by Education and Library Board areas, and primary schools were also stratified by managerial status as controlled by an Education and Library Board or under voluntary management. The grammar, secondary (intermediate), junior high, senior high and bilateral schools were stratified by size as small, medium or large, and by intake characteristics as coeducational, boys only or girls only.

Though according to the table the lowest response rate at the school level was from primary schools, only two primary schools actually declined to take part. The remaining non-participating schools tended to be small rural schools without telephones, and it was possible that some of these schools were represented among a small number of returns which could not be identified on a school basis as they had been returned by individual members of staff.

The target samples for teachers are based on estimates of the numbers of teachers in the target samples of schools. The dis-

tribution samples refer to the numbers of questionnaires known to have been handed out to teachers. The achieved samples represent the numbers of completed questionnaires on which the report is based. A small number of partially-completed returns was excluded from the achieved sample numbers.

Table 1.1 also includes population data for schools and teachers. In the final row of the table the achieved sample of teachers is shown as a percentage of the teacher population for each type of school. These percentages illustrate the extent to which the smaller populations were deliberately over-represented in the sampling design. For example, since there were only three senior high schools, and since it was agreed that the views of teachers in this type of school would be of considerable interest, it was clearly important to include as many such teachers as possible. Hence the decision to ask all full-time teachers in the three schools to take part in the survey. In Part 6 of the report, where teachers' preferences are combined across the various types of school, the weight attached to the views of teachers from each sector is based on the total number of teachers in the sector, the population, rather than upon the numerical samples of teachers here described.

PART 2: TEACHERS' OPINIONS

This part of the report presents an item by item analysis of teachers' responses to the sixty-six items in the first three sections of the questionnaire. Teachers' responses to the items were in the form of five-point scales, ranging from Strongly Agree to Strongly Disagree. The five-point scales provided for two levels of agreement and two levels of disagreement, as well as a level of uncertainty. In the following tables this information is presented as two percentages, one showing the percentage of teachers agreeing with each item, irrespective of strength of agreement, and one showing the percentage of teachers disagreeing with each item, irrespective of strength of disagreement. Because of the differing sampling ratios employed for each school type, and also because of later evidence that teachers' views differed most strongly by school type, all item responses are distinguished by type of school.

THE PRESENT SYSTEM

The percentages of teachers agreeing and disagreeing with each of the twenty-one statements in the first section, 'The present System', are shown in Table 2.1. Since analysis had shown that differences between teacners by school type were highly significant[1], the ensuing discussion simply takes note of the more extreme differences as well as the more obvious consistencies in the table.

The most persistent contrast is that between grammar and senior high school teachers on the one hand, and primary, secondary, junior high and bilateral school teachers on the other. This

[1] A Chi-square analysis of the distribution of responses on which the percentages in Table 2.1 are based, and for which three categories of response by seven school types gave 12 degrees of freedom, showed that for every item level of response by type of school differences were significant at or beyond the 0.01 per cent level of chance.

contrast is exemplified in items 3, 6, 8, 9 and 17, all of which refer to aspects of the Selection Procedure, towards which, in every instance, the grammar and senior high school teachers were more favourably disposed than the other teacher groups. Likewise, in items 1, 5, 10 and 21, all of which refer to aspects of the present system of grammar and secondary (intermediate) schools, the teachers in grammar and senior high schools again adopted a more approving stance. It is also of interest to note that for the majority of these items the teachers in further education stood mid-way in agreement between the extremes of the other teacher groups.

In items 2 and 4, both of which refer to the Review Procedure, senior high school teachers viewed the Procedure in an even more favourable light than the grammar school teachers. Item 12 found the senior high school teachers and the junior high school teachers in greater agreement than any other group that '11+ is the most appropriate age for transfer from primary to secondary education'.

Teachers in further education were more convinced than any other group that, 'by placing a premium on examination success, the secondary (intermediate) schools have neglected their responsibilities towards the less academic child' (item 11). Few teachers, but least of all those in junior high school, were convinced that 'within the present system available financial resources are fairly distributed in relation to the needs of different types of school' (item 14). Likewise, the junior high school teachers agreed more than any other group that 'in the present system a teacher's status tends to be judged by the type of school in which he works' (item 20).

Irrespective of type of school differences, the majority of teachers agreed that 'Selection at 11+ is inefficient in that some pupils who are rejected are subsequently successful academically' (item 9), that, 'by comparison with a uniform system of comprehensive schools the present system gives greater freedom of choice to parents' (item 10), that 'the verbal reasoning test as part of the Selection Procedure has resulted in an undue emphasis on 'coaching for intelligence in the primary school' (item 16), that 'selection at 11+ results in success for an able majority of pupils at the cost

Table 2.1 The Present System. (Percentage of teachers by school type agreeing (A) and disagreeing (D) with each of 21 item-statements.)

Item statements	P (N = 724) A	P D	SI (N = 670) A	SI D	G (N = 524) A	G D	JH (N = 155) A	JH D	SH (N = 83) A	SH D	BL (N = 180) A	BL D	FE (N = 458) A	FE D
1. The present system has successfully encouraged the development of forms of school organisation appropriate to a wide range of pupil abilities, aptitudes and interests.	39	42	38	45	62	22	34	42	64	22	38	44	48	35
2. Mistakes in selection are effectively remedied through the Review Procedure and arrangements for transfer of pupils between types of school.	22	57	20	64	39	39	21	55	51	30	21	66	30	47
3. Selection at 11+ offers an efficient means of making an academic education available to able children.	35	53	33	56	54	28	31	51	52	34	33	55	45	43
4. The Review Procedure operates unfairly in favour of the grammar school fee-payer.	51	20	36	17	47	28	43	21	37	27	53	22	43	22
5. The present system permits teachers to choose the type of school most suited to their interests.	53	29	48	39	72	16	52	31	66	18	49	39	59	26
6. Selection at 11+ is inefficient in that some pupils who are selected are subsequently unsuccessful at grammar school.	75	16	72	19	56	32	66	19	48	39	71	21	57	29
7. The provision of different types of school within the present system is wasteful of educational resources.	33	44	44	40	23	60	30	45	39	46	41	44	33	52
8. By providing opportunities for able children from less advantaged backgrounds, selection operates as an effective instrument of social justice.	47	36	43	41	63	21	47	33	63	23	33	52	59	27
9. Selection at 11+ is inefficient in that some pupils who are rejected are subsequently successful academically.	84	9	84	11	64	24	81	12	63	24	84	12	73	20

Table 2.1 cont'd.

Item statements	P (N = 724) A	P D	SI (N = 670) A	SI D	G (N = 524) A	G D	JH (N = 155) A	JH D	SH (N = 83) A	SH D	BL (N = 180) A	BL D	FE (N = 458) A	FE D
10. By comparison with a uniform system of comprehensive schools the present system gives greater freedom of choice to parents.	58	31	51	39	74	16	60	26	71	21	68	26	62	25
11. By placing a premium on examination success, the secondary (intermediate) schools have neglected their responsibilities towards the less academic child.	44	33	54	40	53	21	48	39	53	27	51	37	66	19
12. 11+ is the most appropriate age for transfer from primary to secondary education.	23	57	30	40	35	32	45	27	48	22	36	38	32	39
13. The middle-class characteristics of the grammar schools place children from less privileged backgrounds at an educational disadvantage.	42	46	48	39	27	65	42	43	27	61	52	34	41	44
14. Within the present system available financial resources are fairly distributed in relation to the needs of different types of school.	22	37	20	46	25	26	14	59	24	25	24	46	25	39
15. The less academic child is best provided for by the existing secondary (intermediate) school system.	41	39	41	41	43	29	37	44	43	28	39	48	37	46
16. The verbal reasoning test as part of the Selection Procedure has resulted in an undue emphasis on 'coaching for intelligence' in the primary school.	83	10	81	7	73	8	74	8	72	8	82	5	75	9
17. Selection at 11+ results in success for an able minority of pupils at the cost of labelling the majority as academic failures.	79	14	77	17	59	31	71	21	60	31	77	16	66	26

Table 2.1 cont'd.

Item statements	P (N = 724) A	P D	SI (N = 670) A	SI D	G (N = 524) A	G D	JH (N = 155) A	JH D	SH (N = 83) A	SH D	BL (N = 180) A	BL D	FE (N = 458) A	FE D
18. The present system has led to a disproportionate concentration of teachers with high academic qualifications in the grammar schools.	62	16	66	19	47	31	72	11	63	22	67	16	58	21
19. Access to grammar schools on a fee-paying basis reinforces socio-economic differences in educational opportunity.	74	17	81	10	62	25	76	1*	70	22	81	13	69	19
20. In the present system a teacher's status tends to be judged by the type of school in which he works.	66	21	71	19	51	31	81	9	57	31	68	21	72	18
21. The grammar school system provides the most suitable environment for the promotion and preservation of high academic standards.	58	26	54	30	80	10	52	27	75	18	51	34	60	26

of labelling the majority as academic failures' (item 17), that 'access to grammar schools on a fee-paying basis reinforces socio-economic differences in educational opportunity' (item 17), that 'in the present system a teacher's status tends to be judged by the type of school in which he works' (item 20), and that 'the grammar school system provides the most suitable environment for the promotion and preservation of high academic standards' (item 21).

None of the 21 statements evoked majority disagreement in every group. The items, such as 2 and 3, which evoked majority disagreement within particular groups also evoked major differences of opinion between groups. However, it was clear that teachers tended to agree rather than disagree with item statements to the extent that a 'yea-saying' phenomenon was apparent in the pattern of responding. It was also evident that those items which provoked the greatest measure of agreement referred, almost without exception, to the inefficiency of selection at 11+ and its ill-effects on education at both the primary and secondary stages.

ORGANISATIONAL ALTERNATIVES

The percentages of teachers, by school type, who agreed and disagreed with each of the twenty statements in the second section, 'Organisational Alternatives', are shown in Table 2.2. As in the previous section, the pattern of responding for many items was highly significantly differentiated by type of school, the least differentiated items being 2, 3, 4, 6 and 18.

THE MIDDLE SCHOOL (9-13)

Of the six statements referring to the middle school only two discriminated between teachers from different types of school. The first of these, which stated that 'a system of middle schools offers the best solution to the lack of readiness of many pupils for transfer to post-primary education' (item 1), was agreed with more readily

Table 2.2 Organisational Alternatives. (Percentages of teachers by school type agreeing (A) and disagreeing (D) with each of 21 item-statements)

Item statements	P (N = 724)		SI (N = 670)		G (N = 524)		JH (N = 155)		SH (N = 83)		BL (N = 180)		FE (N = 458)	
	A	D	A	D	A	D	A	D	A	D	A	D	A	D
THE MIDDLE SCHOOL (9-13)														
1. A system of middle schools offers the best solution to the lack of readiness of many pupils for transfer to post-primary education at 11+.	47	30	42	30	32	35	33	32	35	29	38	32	35	31
2. The benefits of the middle school are outweighed by the disadvantages which would result from introducing two transfer stages, at ages 9 and 13.	47	25	47	24	54	18	47	23	51	19	48	28	45	22
3. The upper levels of the present primary school system should be incorporated in a separate system of middle schools.	33	43	29	40	23	44	24	41	30	46	28	44	26	42
4. The middle school provides an effective means of linking the work of the upper primary school with that of the lower forms in post-primary education.	53	24	51	23	42	26	44	25	39	24	47	27	42	27
5. Because of their limited age range, middle schools would have difficulty in attracting specialist teachers in certain subjects.	49	31	62	24	70	15	64	19	74	12	67	18	54	20
6. The development of junior transition departments in post-primary schools is preferable to the introduction of a separate system of middle schools.	49	17	47	18	56	12	49	14	45	17	50	18	44	18
THE TWO-TIER SYSTEM OF 11-14 JUNIOR AND 14-18 SENIOR HIGH SCHOOLS														
7. The adaptation of the present system of grammar & secondary schools to a two-tier comprehensive structure is an acceptable solution to the problem of secondary reorganisation.	41	33	38	38	26	47	59	22	25	58	35	47	36	39

Table 2.2 cont'd.

Item statements	P (N = 724) A	P D	SI (N = 670) A	SI D	G (N = 524) A	G D	JH (N = 155) A	JH D	SH (N = 83) A	SH D	BL (N = 180) A	BL D	FE (N = 458) A	FE D
8. In a two-tier system the senior high school would attract a disproportionate share of teacher resources from the junior high school.	34	27	49	21	50	20	52	23	46	33	55	22	43	24
9. Transfer at 14+ in a two-tier system is likely to aggravate problems of adjustment during adolescence.	39	34	49	28	56	22	36	41	65	21	48	29	39	34
10. In a two-tier system of secondary reorganisation, the most appropriate role for secondary intermediate schools should be as junior high schools for the 11-14 age group.	59	14	49	29	55	12	75	9	69	12	51	29	59	15
11. In a two-tier system of secondary reorganisation, the most appropriate role for the voluntary grammar schools should be as senior high schools for the 14-18 age group.	65	13	52	25	68	11	77	8	77	8	53	30	57	16
12. Selection at 14+ would be an acceptable feature within a two-tier comprehensive structure.	62	17	55	25	53	21	73	12	55	18	45	30	56	20
THE ALL-THROUGH COMPREHENSIVE SCHOOL (11-18)														
13. The all-through comprehensive school provides a continuity of relationships for pupils and teachers throughout the period of adolescence.	66	19	78	13	66	17	79	8	83	5	83	10	65	19
14. Many pupils may become increasingly bored in the unchanging environment of the all-through comprehensive school.	53	27	48	33	45	28	52	27	23	42	40	44	57	25
15. The continuity of the all-through comprehensive school would encourage a greater proportion of pupils to remain in full-time education beyond the school leaving age.	28	42	35	36	25	42	31	32	37	23	48	29	26	43
16. In order to provide an adequate range of opportunity for sixth-form specialisation, the all-through comprehensive school would need an excessively large pupil intake.	52	24	59	24	63	18	61	14	59	17	51	36	56	22

Table 2.2 cont'd.

Item statements	P (N = 724) A	P D	SI (N = 670) A	SI D	G (N = 524) A	G D	JH (N = 155) A	JH D	SH (N = 83) A	SH D	BL (N = 180) A	BL D	FE (N = 458) A	FE D
A SYSTEM OF 11-16 COMPREHENSIVE SCHOOLS FOLLOWED BY ALTERNATIVE SIXTH-FORM STRUCTURES														
17. By contrast with other forms of secondary reorganisation, the present school leaving age makes transfer at 16 to a sixth-form structure a suitable transition stage.	62	19	65	17	57	20	56	20	36	35	68	18	63	17
18. A system of transfer at age 16 to academic sixth-form colleges should be complemented by transfer to technical colleges for those students wishing to pursue vocational courses.	87	4	85	8	86	6	89	5	75	11	80	11	88	6
19. Reorganisation at the sixth-form level provides an ideal opportunity to promote the religious integration of students in the 16-18 age group.	56	18	62	17	57	19	54	14	43	34	68	12	61	19
20. A sixth-form college should provide, both academically and vocationally, for all full-time students in the 16+ age range.	68	16	70	15	53	26	73	10	47	34	63	18	59	28

by primary school teachers than by any other groups. The second, which stated that 'because of their limited age-range, middle schools would have difficulty in attracting specialist teachers in certain subjects' (item 5), was agreed with by a clear majority of teachers in all groups but one, the primary school teachers, forty-nine per cent of whom agreed with the statement. As to the remaining statements, the most interesting finding to emerge was the clear lack of majority approval for the suggestion that 'the upper levels of the present primary school system should be incorporated in a separate system of middle schools' (item 3).

A TWO-TIER SYSTEM OF 11-14 JUNIOR AND 14-18 SENIOR HIGH SCHOOLS

While the junior high school teachers agreed as a majority that 'the adaptation of the present system of grammar and secondary schools to a two-tier comprehensive structure is an acceptable solution to the problem of secondary school organisation' (item 7), the majority of senior high school teachers opposed the suggestion. By contrast, while there was general approval for the suggestion that in a two-tier system of secondary reorganisation the most appropriate roles for the secondary (intermediate) and voluntary grammar schools would be as junior and senior high schools (items 10 and 11 respectively), both junior and senior school teachers approved of the suggestion most vigorously.

Though all the teacher groups in secondary education agreed more than teachers in primary or further education that 'the senior high school would attract a disproportionate share of teacher resources from the junior high school' (item 8), senior high school teachers were more concerned that 'transfer at 14+ within a two-tier system is likely to aggravate problems of adjustment during adolescence' (item 9). However, the majority of teachers, with the exception of those in bilateral schools, agreed that 'selection at 14+ would be an acceptable feature within a two-tier comprehensive structure' (item 12).

THE ALL-THROUGH COMPREHENSIVE SCHOOL (11-18)

While a consistent majority of teachers agreed that 'the all-through comprehensive provides a continuity of relationships for pupils and teachers throughout the period of adolescence' (item 13), only a minority was convinced that this continuity 'would encourage a greater proportion of pupils to remain in full-time education beyond the school leaving age' (item 15).

None of the teacher groups, with the possible exception of those in further education, was fully convinced that 'many pupils may become increasingly bored in the unchanging environment of the all-through comprehensive school' (item 14). Instead, the senior high school teachers firmly disagreed, and teachers in bilateral schools were almost evenly divided on the issue. However, the secondary (intermediate), grammar, junior high and senior high school teachers were most inclined to agree that 'in order to provide an adequate range of opportunity for sixth-form specialisation, the all-through comprehensive school would need an excessively large pupil intake' (item 16).

A SYSTEM OF 11-16 COMPREHENSIVE SCHOOLS FOLLOWED BY ALTERNATIVE SIXTH-FORM STRUCTURES

The senior high school teachers were the only group which was not in agreement as a majority that 'by contrast with other forms of secondary reorganisation, the present school leaving age makes transfer at 16 to a sixth-form structure a suitable transition stage' (item 17). Moreover, the same group was least convinced that 'reorganisation at the sixth-form level provides an ideal opportunity to promote the religious integration of students in the 16-18 age group' (item 19), as it was also least convinced that 'a sixth-form college should provide, both academically and vocationally, for all full-time students in the 16+ age-range' (item 20).

By contrast, all groups were very strongly in agreement that 'a system of transfer at age 16 to academic sixth-form colleges should be complemented by transfer to technical colleges for those students wishing to pursue vocational courses' (item 18).

PURPOSES AND PROCESSES IN SECONDARY EDUCATION

The percentages of teachers, by school type, who agreed and disagreed with each of the twenty-five statements in the third section, 'Purposes and Processes in Secondary Education' are shown in Table 2.3. As in the first two sections, the pattern of responding for many items was very significantly different by type of school, the least differentiated items being 6, 9, 12, 13, 17 and 23.

Despite differences of emphasis between types of school, there was widespread agreement that 'in the life of the school, provision for guidance and counselling is of equal importance with concern for academic standards' (item 1), and strong disagreement with the statement that 'the number of 'O' and 'A' level successes obtained in the GCE examination is the most important index of a school's effectiveness' (item 19).

A clear majority of teachers agreed that 'the economical use of existing school buildings should be a major consideration in any scheme of secondary reorganisation' (item 2), and a majority agreed that 'any scheme of secondary reorganisation should seek to incorporate the voluntary grammar schools' (item 6). However, while a majority of teachers agreed that 'in any scheme of secondary reorganisation schools should be encouraged to evolve in directions best suited to local needs and provision' (item 15), a majority of teachers equally felt that 'lack of central direction will encourage the growth of piecemeal forms of school organisation at the secondary stage' (item 24).

The majority of teachers agreed that 'coeducation should be regarded as an important principle of any scheme of secondary reorganisation' (item 7), and that 'any scheme of secondary reorganisation which tolerates the segregation of pupils on religious grounds does not merit the label 'comprehensive'' (item 11). However, only in the grammar schools, the bilateral schools and colleges of further education did a majority of teachers agree that 'in the Northern Ireland context, the problem of religious rather than social integration should be the more immediate concern of any scheme of secondary reorganisation' (item 25).

Table 2.3 Purposes and Processes in Secondary Education. (Percentages of teachers by school types agreeing (A) and disagreeing (D) with each of 25 item-statements.)

Item statements	P (N = 724)		SI (N = 670)		G (N = 524)		JH (N = 155)		SH (N = 83)		BL (N = 180)		FE (N = 458)	
	A	D	A	D	A	D	A	D	A	D	A	D	A	D
1. In the life of the school, provision for guidance and counselling is of equal importance with concern for academic standards.	90	6	86	9	81	13	88	6	82	6	83	11	82	12
2. The economical use of existing school buildings should be a major consideration in any scheme of secondary reorganisation.	89	6	84	9	81	11	81	11	71	23	84	11	83	11
3. No system of education which treats all children alike can possibly produce the future leaders of society.	45	42	34	52	43	40	32	52	35	46	30	57	49	37
4. Any tiered system of secondary reorganisation may result in unacceptable differences in scale post allowances within the teaching profession.	39	14	57	11	44	12	72	5	49	23	57	10	14	15
5. Only by providing pupils with a common fund of shared experiences can education prepare them to be members of one community.	59	24	63	20	41	37	59	20	46	33	67	16	54	27
6. Any scheme of secondary reorganisation should seek to incorporate the voluntary grammar schools.	70	14	73	14	64	20	68	10	58	22	68	15	68	17
7. Co-education should be regarded as an important principle of any scheme of secondary reorganisation.	77	9	78	9	72	15	83	6	80	13	76	8	81	7
8. The rigid allocation of pupils to different types of school at 11+ is in conflict with the continuing assessment of their special talents and disabilities.	73	15	72	17	57	25	70	14	52	27	71	18	59	24
9. School systems reflect rather than create inequalities within society.	64	20	58	24	68	15	72	15	61	22	62	26	60	22
10. The academic advantages outweigh any adverse effects of grouping pupils by ability.	46	29	42	33	59	16	55	21	71	10	48	27	52	22

Table 2.3 cont'd.

Item statements	P (N = 724) A	P D	SI (N = 670) A	SI D	G (N = 524) A	G D	JH (N = 155) A	JH D	SH (N = 83) A	SH D	BL (N = 180) A	BL D	FE (N = 458) A	FE D
11. Any scheme of secondary reorganisation which tolerates the segregation of pupils on religious grounds does not merit the label 'comprehensive.'	64	23	63	24	63	26	64	18	69	19	71	18	83	9
12. Competitiveness in schooling provides a useful introduction to adult life by teaching children that if they wish to succeed they must strive for excellence.	76	16	75	16	77	13	72	12	83	6	74	19	77	14
13. The Selection Procedure, while defining the function of the grammar school, has failed to provide the secondary (intermediate) school with any distinctive purpose.	66	25	59	31	57	30	66	23	57	36	62	32	61	28
14. The grammar school curriculum is socially divisive in that it gives priority to the cultural requirements of one social class.	40	46	50	35	23	67	40	46	22	60	54	36	37	46
15. In any scheme of secondary reorganisation schools should be encouraged to evolve in directions best suited to local needs and provision.	74	12	76	11	73	13	74	9	63	16	88	5	65	18
16. Comprehensive education attempts to ignore the fact that some children are more gifted than others.	42	45	36	53	57	30	32	54	54	33	34	60	52	37
17. A major purpose of education is to provide society with leaders of high moral and intellectual character.	59	31	56	33	66	23	51	34	68	22	55	34	59	33
18. The establishment of neighbourhood-based comprehensive schools catering for a local intake would perpetuate social differences between communities.	42	31	35	37	58	17	41	28	61	13	44	29	47	22
19. The number of 'O' and 'A' level successes obtained in the G.C.E. examination is the most important index of a school's effectiveness.	17	72	13	79	16	73	12	79	29	63	8	85	22	68

Table 2.3

cont'd.

Item statements	P (N = 724) A	P D	DI (N = 670) A	DI D	G (N = 524) A	G D	JH (N = 155) A	JH D	SH (N = 83) A	SH D	BL (N = 180) A	BL D	FE (N = 458) A	FE D
20. Selective academic education fosters in its pupils social values based on competition rather than co-operation.	49	29	58	21	33	44	44	35	34	43	48	27	45	30
21. A comprehensive school should be guaranteed a pupil intake which is representative of all social classes.	73	16	72	14	60	21	71	17	58	18	72	14	60	21
22. Very able pupils are unlikely to give of their best academically in any type of comprehensive school.	32	52	30	55	46	32	19	64	41	42	27	64	41	43
23. The educational system is a potential force for change in society.	79	7	80	7	77	9	70	7	76	7	84	5	78	9
24. Lack of central direction will encourage the growth of piecemeal forms of school organisation at the secondary stage.	71	5	76	6	65	12	76	7	72	8	72	7	75	5
25. In the Northern Ireland context, the problem of religious rather than social integration should be the more immediate concern of any scheme of secondary reorganisation.	42	41	47	36	51	33	45	38	48	31	56	24	59	25

While teachers were inclined to agree that 'a major purpose of education is to provide society with leaders of high moral and intellectual character' (item 17), and agreed more strongly that 'competitiveness in schooling provides a useful introduction to adult life by teaching children that if they wish to succeed they must strive for excellence' (item 12), there was a much greater division of opinion with regard to the statement that 'no system of education which treats all children alike can possibly produce the future leaders of society' (item 3). Moreover, while the majority of teachers agreed that 'the educational system is a potential force for change in society' (item 23), the majority also agreed that 'school systems reflect rather than create inequalities within society' (item 9).

Certain items revealed quite marked differences of view between different teacher groups. For example, the majority of teachers in the junior high schools were convinced that 'any tiered system of secondary reorganisation may result in unacceptable differences in scale post allowances within the teaching profession' (item 4), whereas teachers in further education were least convinced of this. Teachers in the senior high schools were most convinced that 'the academic advantages outweight any adverse effects of grouping pupils by ability' (item 10).

Teachers in grammar and senior high schools were less convinced than teachers in other types of school that 'only by providing pupils with a common fund of shared experiences can education prepare them to be members of one community' (item 5), that 'the rigid allocation of pupils to different types of school at 11+ is in conflict with the continuing assessment of their special talents and disabilities' (item 8), that 'the grammar school curriculum is socially divisive in that it gives priority to the cultural requirements of one social class' (item 14), that 'selective academic education fosters in its pupils social values based on competition rather than co-operation' (item 20), and that 'a comprehensive school should be guaranteed a pupil intake which is representative of all social classes' (item 21).

By contrast, teachers in grammar and senior high schools were more convinced than teachers in other types of school that 'comprehensive education attempts to ignore the fact that some children are more gifted than others' (item 16), that 'the establishment of neighbourhood-based comprehensive schools catering for a local intake would perpetuate social differences between communities' (item 18), and that 'very able pupils are unlikely to give of their best academically in any type of comprehensive school' (item 22).

PART 3: THE STRUCTURE OF TEACHERS' OPINIONS

Many of the 66 items in the first three sections of the questionnaire were presented in terms of apparently related content. The most obvious examples were in the second section, 'Organisational Alternatives', where items were grouped by reference to types of school organisation. A number of items in the first section, 'The Present System', referred particularly to the existing structure of grammar and secondary (intermediate) schools, and a number of items also concentrated upon selection at 11+. A factor analysis[1] of these 66 items was therefore conducted in order to indicate whether, or to what extent, the structure of teachers' responses to the questionnaire was in keeping with the ostensible content similarities of the instrument.

The analysis identified fifteen factors or dimensions of attitude characterising teachers' replies to the questionnaire. The items identified by each of these factors were subsequently combined to form attitude scales[2]. The internal consistency of each set of items was then estimated in order to check whether the items were worth retaining in attitude scale form for further analysis. The thirteen factors whose items had the highest *alpha*-coefficients when combined to form scales are described as follows:

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[1] A principal components analysis of the 66-item correlation matrix yielded 15 components with *eigen* values in excess of unity. A Varimax rotation of the 15 components is presented in Table B.1 of Appendix B.

[2] For Likert-type scale summation (see Edwards, 1957) items were weighted on a 5, 4, 3, 2, 1 basis for positive factor loadings, and on a 1, 2, 3, 4, 5 basis for negative factor loadings. In the former case a value of 5 and in the latter case a value of 1 were respectively equivalent to the Strongly Agree category of response. The *alpha*-coefficient of internal consistency was first devised by Cronbach (1951).

FACTOR 1. THE PRESENT BIPARTITE SYSTEM

Eleven items with highest loadings were chosen to define and illustrate this factor. Eight of these items were from the first section of the questionnaire, 'The Present System', and three were from the third section, 'Purposes and Processes in Secondary Education'. The eleven items, numbered by section together with their factor loadings, were as follows:

1.1	*The present system has successfully encouraged the development of forms of school organisation appropriate to a wide range of pupil abilities, aptitudes and interests.*	0.72
1.2	*Mistakes in selection are effectively remedied through the Review Procedure and arrangements for transfer of pupils between types of school.*	0.60
1.3	*Selection at 11+ offers an efficient means of making an academic education available to able children.*	0.57
1.5	*The present system permits teachers to choose the type of school most suited to their interests.*	0.59
1.8	*By providing opportunities for able children from less advantaged backgrounds selection operates as an effective instrument of social justice.*	0.68
1.10	*By comparison with a uniform system of comprehensive schools the present system gives greater freedom of choice to parents.*	0.63
1.15	*The less academic child is best provided for by the existing secondary (intermediate) school system.*	0.61
1.21	*The grammar school system provides the most suitable environment for the promotion and preservation of high academic standards.*	0.67
3.10	*The academic advantages outweigh any adverse effects of grouping pupils by ability.*	0.53
3.16	*Comprehensive education attempts to ignore the fact that some children are more gifted than others.*	0.56
3.22	*Very able pupils are unlikely to give of their best academically in any type of comprehensive school.*	0.54

Despite the apparent diversity of content of this first factor the Likert-type attitude scale, formed by summing the eleven items,

had an *alpha*-coefficient of 0.88. This indicated that the scale was internally consistent to the extent that it could be relied on to place teachers on an attitude continuum of approval-disapproval with regard to the present bipartite system of selective grammar and non-selective secondary (intermediate) schools.

FACTOR 2: THE MIDDLE SCHOOL

The second factor brought together six items which referred specifically to the middle school. These six items, with their factor loadings, were as follows:

2.1	*A system of middle schools offers the best solution to the lack of readiness of many pupils for transfer to post-primary education at 11+.*	0.82
2.2	*The benefits of the middle school are outweighed by the disadvantages which would result from introducing two transfer stages, at ages 9 and 13.*	-0.36
2.3	*The upper levels of the present primary school system should be incorporated in a separate system of middle schools.*	0.81
2.4	*The middle school provides an effective means of linking the work of the upper primary school with that of the lower forms in post-primary education.*	0.80
2.5	*Because of the limited age-range, middle schools would have difficulty in attracting specialist teachers in certain subjects.*	-0.58
2.6	*The development of junior transition departments in post-primary schools is preferable to the introduction of a separate system of middle schools.*	-0.65

The *alpha*-coefficient for these six items combined as a scale was 0.50, a value which indicated that the internal consistency of such a scale was only moderately acceptable.

FACTOR 3: THE ALL-THROUGH COMPREHENSIVE SCHOOL

The four items which defined the third factor all referred to aspects of the all-through comprehensive school. These four items with their factor loadings were as follows:

2.13	*The all-through comprehensive school provides a continuity of relationships for pupils and teachers throughout the period of adolescence.*	0.66
2.14	*Many pupils may become increasingly bored in the unchanging environment of the all-through comprehensive school.*	-0.77
2.15	*The continuity of the all-through comprehensive school would encourage a greater proportion of pupils to remain in full-time education beyond the school leaving age.*	0.74
2.16	*In order to provide an adequate range of opportunity for sixth-form specialisation, the all-through comprehensive school would need an excessively large pupil intake.*	-0.43

The *alpha*-coefficient for these six items combined as a scale was 0.68, a value indicative of an acceptable level of internal consistency in the scale.

FACTOR 4: A TWO-TIER SYSTEM OF JUNIOR AND SENIOR HIGH SCHOOLS

The five items which defined the fourth factor included all but one of the six items in the second section which referred specifically to aspects of a two-tier system of junior and senior high schools. The five items, with their factor loadings, were as follows:

2.7	*The adaptation of the present system of grammar and secondary schools to a two-tier comprehensive structure is an acceptable solution to the problem of secondary reorganisation.*	0.53
2.9	*Transfer at 14+ in a two-tier system is likely to aggravate problems of adjustment during adolescence.*	-0.40
2.10	*In a two-tier system of secondary reorganisation, the most appropriate role for secondary intermediate schools should be as junior high schools for the 11-14 age-group.*	0.81
2.11	*In a two-tier system of secondary reorganisation, the most appropriate role for the voluntary grammar schools should be as senior high schools for the 14-18 group.*	0.82
2.12	*Selection at 14+ would be an acceptable feature within a two-tier comprehensive structure.*	0.63

The *alpha*-coefficient for these five items combined as a scale was 0.35, a value indicative of rather weak internal consistency.

FACTOR 5: COEDUCATION AND RELIGIOUS INTEGRATION

The three items which defined the fifth factor were as follows:

3.7	*Coeducation should be regarded as an important principle of any scheme of secondary reorganisation.*	0.53
3.11	*Any scheme of secondary reorganisation which tolerates the segregation of pupils on religious grounds does not merit the label 'comprehensive'.*	0.82
3.25	*In the Northern Ireland context, the problem of religious rather than social integration should be the more immediate concern of any scheme of secondary reorganisation.*	0.74

The *alpha*-coefficient for these three items combined as a scale was 0.59, a value indicative of moderate internal consistency in the scale.

FACTOR 6: TRANSFER AT 16+

The three items which defined the sixth factor were as follows:

2.17	*By contrast with other forms of secondary reorganisation, the present school leaving age makes transfer at 16 to a sixth-form structure a suitable transition stage.*	0.79
2.18	*A system of transfer at age 16 to academic sixth-form colleges should be complemented by transfer to technical colleges for those students wishing to pursue vocational courses.*	0.69
2.19	*Reorganisation at the sixth-form level provides an ideal opportunity to promote the religious integration of students in the 16-18 age-group.*	0.66

The *alpha*-coefficient for these three items combined as a scale was 0.58, a value indicative of moderate internal consistency in the scale.

FACTOR 7: INEFFICIENCY OF SELECTION AT 11+

Of the seven items which defined the seventh factor, six were from the first section of the questionnaire. One of the seven items, 1.3, was also included in the eleven items of the first factor. The seven items, with their factor loadings, were as follows:

1.3	*Selection at 11+ offers an efficient means of making an academic education available to able children.*	-0.49
1.6	*Selection at 11+ is inefficient in that some pupils who are selected are subsequently unsuccessful at grammar school.*	0.75
1.9	*Selection at 11+ is inefficient in that some pupils who are rejected are subsequently successful academically.*	0.71
1.12	*11+ is the most appropriate age for transfer from primary to secondary education.*	-0.41
1.16	*The verbal reasoning test as part of the Selection Procedure has resulted in an undue emphasis on 'coaching for intelligence' in the primary school.*	0.46
1.17	*Selection at 11+ results in success for an able minority of pupils at the cost of labelling the majority as academic failures.*	0.52
3.8	*The rigid allocation of pupils to different types of school at 11+ is in conflict with the continuing assessment of their special talents and disabilities.*	0.47

The *alpha*-coefficient for these seven items combined as a scale was 0.82, a value indicative of a very acceptable level of internal consistency.

FACTOR 8: THE COMPREHENSIVE PRINCIPLE

The four items which had the highest loadings on the eighth factor were as follows:

2.20	*A sixth-form college should provide, both academically and vocationally, for all full-time students in the 16+ age range.*	0.50
3.5	*Only by providing pupils with a common fund of shared experiences can education prepare them to be members of one community.*	0.54

3.20 *Selective academic education fosters in its pupils social values based on competition rather than co-operation.* 0.46

3.21 *A comprehensive school should be guaranteed a pupil intake which is representative of all social classes.* 0.49

The *alpha*-coefficient for these four items combined as a scale was 0.32, a value indicative of weak internal consistency.

FACTOR 9: TEACHERS INEQUALITIES IN A TIERED SYSTEM

The two items which defined the ninth factor were as follows:

2.8 *In a two-tier system the senior high school would attract a disproportionate share of teacher resources from the junior high school.* 0.65

3.4 *Any tiered system of secondary reorganisation may result in unacceptable differences in scale post allowances within the teaching profession.* 0.69

The *alpha*-coefficient for the two items in combination was 0.42, a value indicative of weak internal consistency in the scale.

FACTOR 10: CRITIQUE OF THE SECONDARY (INTERMEDIATE) SCHOOL

1.11 *By placing a premium on examination success, the secondary (intermediate) schools have neglected their responsibilities towards the less academic child.* 0.72

1.15 *The less academic child is best provided for by the existing secondary (intermediate) school system.* -0.41

3.13 *The Selection Procedure, while defining the function of the grammar school, has failed to provide the secondary (intermediate) school with any distinctive purpose.* 0.50

The *alpha*-coefficient for these items in combination was 0.54, a value indicative of only moderate internal consistency in the scale.

FACTOR 11: CRITIQUE OF THE GRAMMAR SCHOOL

The five items which defined the eleventh factor were as follows:

1.4	*The Review Procedure operates unfairly in favour of the grammar school fee-payer.*	0.57
1.13	*The middle-class characteristics of the grammar schools place children from less privileged backgrounds at an educational disadvantage.*	0.42
1.18	*The present system has led to a disproportionate concentration of teachers with high academic qualifications in the grammar schools.*	0.47
1.19	*Access to grammar schools on a fee-paying basis reinforces socio-economic differences in educational opportunity.*	0.63
1.20	*In the present system a teacher's status tends to be judged by the type of school in which he works.*	0.45

The *alpha*-coefficient for these five items in combination was 0.73, a value indicative of an acceptable degree of internal consistency.

FACTOR 12: ACADEMIC EXCELLENCE

The twelfth factor was defined by four items, as follows:

3.1	*In the life of the school, provision for guidance and counselling is of equal importance with concern for academic standards.*	-0.49
3.12	*Competitiveness in schooling provides a useful introduction to adult life by teaching children that if they wish to succeed they must strive for excellence.*	0.39
3.17	*A major purpose of education is to provide society with leaders of high moral and intellectual character.*	0.44
3.19	*The number of 'O' and 'A' level successes obtained in the GCE examination is the most important index of a school's effectiveness.*	0.59

The *alpha*-coefficient for these four items in combination was 0.45, a value indicative of rather weak internal consistency.

FACTOR 13: THE SCHOOL AS CHANGE AGENT

The two items which defined the thirteenth factor were as follows:

3.23	*The educational system is a potential force for change in society.*	0.67
3.24	*Lack of central direction will encourage the growth of piecemeal forms of school organisation at the secondary stage.*	0.62

The *alpha*-coefficient for the two items in combination was 0.35, a value indicative of weak internal consistency.

THE STRUCTURE REVIEWED

The three attitude scales which were most robust in terms of the internal consistency of constituent items were from the first section of the questionnaire, 'The Present System'. As the items in this section were based on familiar arguments, it might therefore be concluded that in any debate on the reorganisation of secondary education the most strongly formed attitudes will pertain to the here and now of the teacher's experience.

Though this conclusion is continually illustrated in the later sections of this report, it should also be tempered by the observation that the more familiar the argument the greater the variety of ways in which it may be instanced. This is well illustrated in factor 7, where three items referred specifically to the efficiency or otherwise of the selection procedure, and thereby contributed cumulatively to the sampling of a consistent attitude with regard to the procedure.

The four sub-sections which formed the second part of the questionnaire, 'Organisational Alternatives', emerged from the analysis as four coherent factors. Of these, the least internally consistent was composed of a set of items to do with a two-tier structure of junior and senior high schools. This same set of items had

been shown, in the item analysis in Part 2, to have evoked a varied pattern of responses from teachers.

The third section of the questionnaire, 'Purposes and Processes in Secondary Education', produced seven attitude dimensions of which the most internally consistent identified an attitude towards co-education and religious integration, and an attitude towards the secondary (intermediate) school. The weakest attitude scales, including the two factors which were not reported, also came from the third section, and this again supported the conclusion that teacher attitudes were less firmly structured in the less familiar areas of ideological debate.

As a general comment, it would seem that the structure of the thirteen factors, as described in Part 3, reflected fairly closely the ostensible structure of the questionnaire, as judged by its item content. The analysis confirmed the more predictable combinations of item-sets, as in the section, 'Organisational Alternatives'. It also made available for further analysis a set of attitude dimensions which were singularly free from interpretative ambiguities.

PART 4: DIFFERENCES IN TEACHERS' ATTITUDES

The biographical information provided by teachers in the final section of the questionnaire allowed teachers to be grouped in a number of ways. It was therefore possible to examine the extent to which teachers' views, when represented as scores on each of the 13 attitudes scales, differed from group to group.

The analysis[1] showed that when teachers were grouped by type of school, length of teaching experience, type of teacher training, level of responsibility, etc., these various groupings accounted for only a small proportion of the full range of teacher differences. However, of all the teacher groupings examined, that of school type made the greatest difference, followed by grouping according to the managerial structure or religious affiliation of the school, and, for certain attitudes, the teacher's length of teaching experience and sex.

DIFFERENCES RELATED TO TYPE OF SCHOOL

On ten of the 13 attitude scales teachers' views differed by type of school to an extent which warrants comment. The mean scores obtained on each scale by the various teacher groups are shown in Table 4.1.

The analysis had shown that school type differences were strongest on the three scales which were most internally consistent. These were *The present bipartite system, The inefficiency of*

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[1] The analysis used was the regression analogue of analysis of covariance. The results are summarised in Table B.2 of Appendix B. The table shows, for each attitude scale, the percentage variation accounted for by all teacher groupings in combination. It also shows the variation accounted for by each grouping in turn in addition to that accounted for by all the remaining groupings. Because of the large number of degrees of freedom available, many quite small group effects were statistically significant. Only those groupings which accounted for one per cent or more of variation in an attitude scale are discussed in the text.

Table 4.1: Mean attitude scale scores by type of school.

Attitude scale	Primary	Secondary	Grammar	Junior High	Senior High	Bilateral	Further Ed.
1. *The present bipartite system*	33.3	32.1	38.5	32.9	37.9	31.6	34.8
3. *The all-through comprehensive school*	11.7	12.2	11.5	12.0	12.9	13.1	11.4
4. *A two-tier system of junior and senior high schools*	16.6	16.0	16.6	17.6	17.1	15.5	16.2
6. *Transfer at 16+*	10.8	11.0	10.8	10.9	9.7	11.0	11.2
7. *Inefficiency of selection at 11+*	26.4	25.9	23.2	25.0	22.7	26.0	24.1
8. *The comprehensive principle*	15.7	16.3	14.7	15.9	14.7	16.2	15.5
9. *Teacher inequalities in a tiered system*	6.4	6.9	6.7	7.5	6.5	7.0	6.6
10. *Critique of the secondary (intermediate) school*	9.7	9.6	9.6	9.8	9.6	9.8	10.4
11. *Critique of the grammar school*	17.3	17.9	15.6	17.9	16.2	18.0	17.0
13. *The school as change agent*	7.6	7.7	7.5	7.7	7.7	7.8	7.7

selection at 11+, and *Critique of the grammar school*. The mean scale scores presented in Table 4.1 indicate consistent contrasts on these scales. Thus, grammar and senior high school teachers were on average most favourably disposed towards the present system, least convinced of the inefficiency of selection at 11+, and least critical of the grammar school. By contrast, bilateral and secondary school teachers were on average least favourably disposed towards the present system, most convinced, along with primary school teachers, of the inefficiency of selection at 11+, and most critical, along with junior high school teachers, of the grammar school.

Teachers in bilateral schools were on average most favourably disposed towards the all-through comprehensive school, towards which teachers in grammar schools and further education were least favourably disposed. Junior and senior high school teachers were on average most approving of a two-tier system, whereas teachers in further education colleges, bilateral schools and secondary schools were most approving of transfer at 16+. Secondary and bilateral school teachers were on average most in favour of the comprehensive principle, and the latter group was also most persuaded that the school is a potential force for social change. Junior high school teachers were on average most concerned about the degree of teacher inequality in a tiered system of secondary schools, whereas teachers in further education were most critical of the secondary (intermediate) school.

DIFFERENCES RELATED TO MANAGERIAL STATUS AND RELIGIOUS AFFILIATION

Whether teachers were in schools controlled by the Education and Library Boards or in schools with voluntary management committees was an important source of difference between teachers on five of the scales. The mean scores for these scales are presented in Table 4.2 by school type and school management status. As the majority of schools in the grammar school sector, irrespective of whether their enrolments were mainly Protestant or Roman Catholic, are under voluntary management, the voluntary sector was subdivided by predominant religious affiliation. The seven primary

Table 4.2: Mean attitude scale scores by managerial status and type of school.

	Area Board controlled	Roman Catholic voluntary	Protestant voluntary
Primary school teacher sample	430	287	7
The Present System	35.1	30.4	43.1
Inefficiency of selection	25.3	28.1	22.7
Secondary School critique	9.1	10.7	6.7
Coed. and religious integration	11.0	9.8	12.3
Academic excellence	11.6	11.0	12.3
Secondary school teacher sample	286	384	-
The Present System	33.4	31.0	-
Inefficiency of selection	24.8	26.6	-
Secondary school critique	8.8	10.2	-
Coed. and religious integration	11.2	10.4	-
Academic excellence	10.8	11.4	-
Grammar school teacher sample	98	252	174
The Present System	40.6	36.2	40.5
Inefficiency of selection	21.8	24.6	21.9
Secondary school critique	9.6	10.2	9.0
Coed. and religious integration	11.8	9.5	11.9
Academic excellence	12.8	11.1	12.0
Junior High school teacher sample	100	55	-
The Present System	34.0	30.7	-
Inefficiency of selection	24.6	25.7	-
Secondary school critique	9.3	10.9	-
Coed. and religious integration	11.3	10.4	-
Academic excellence	11.3	10.6	-
Senior High school teacher sample	62	21	-
The Present System	37.8	38.1	-
Inefficiency of selection	22.8	22.2	-
Secondary school critique	9.5	9.8	-
Coed. and religious integration	11.5	10.6	-
Academic excellence	12.2	12.0	-
Bilateral school teacher sample	136	44	-
The Present System	32.8	27.8	-
Inefficiency of selection	25.7	26.7	-
Secondary school critique	9.2	11.4	-
Coed. and religious integration	11.4	11.1	-
Academic excellence	11.1	10.4	-

school teachers who appear in the Protestant voluntary school column were from grammar school preparatory departments. Teachers in the further education sector were excluded from the table since the area technical colleges are all in the controlled sector.

The pattern of differences in the table is consistently clear. Irrespective of type of school, teachers in the controlled sector were on average more approving of the present system, less critical of selection at 11+, less critical of the secondary (intermediate) school, more concerned with coeducation and religious integration as issues in secondary reorganisation, and attached greater importance to academic excellence as a primary objective in secondary education than did their colleagues in the Roman Catholic voluntary sector. At grammar school level the teachers in the Protestant voluntary schools resembled most closely their colleagues in the controlled sector. The evidence therefore points to consistent differences in attitude on religious grounds, in that teachers in the mainly Protestant sector were less critical of the present bipartite system, selection at 11+, and the role of the secondary (intermediate) school, while attaching greater importance to coeducation, religious integration and academic excellence than their colleagues in the mainly Roman Catholic sector.

DIFFERENCES RELATED TO THE SEX OF THE TEACHER

Four attitude scales revealed fairly strong differences between the sexes, and the mean scores for these scales are presented by sex of teacher and type of school in Table 4.3.

The pattern of differences between mean scores shows that, irrespective of type of school differences, female teachers were on average more approving of the present bipartite system, less critical of the secondary school, and less critical of the grammar school than their male colleagues. Again, irrespective of type of school differences, male teachers were on average more likely than female teachers to consider that a two-tier system of junior and senior high schools would lead to unacceptable differences between the two tiers in terms of teacher resources and financial reward.

Table 4.3 Mean attitude scores by sex of teacher and type of school

	Male teachers	Female teachers
Primary school teacher sample	201	518
The Present System	31.4	34.1
Teacher inequalities	6.7	6.3
The secondary school	10.3	9.5
The grammar school	18.5	16.9
Secondary school teacher sample	348	315
The Present System	30.3	34.0
Teacher inequalities	7.2	6.6
The secondary school	9.9	9.2
The grammar school	18.6	17.2
Grammar school teacher sample	276	243
The Present System	38.1	39.1
Teacher inequalities	6.9	6.6
The secondary school	9.9	9.4
The grammar school	16.1	15.1
Junior high school teacher sample	73	81
The Present System	31.6	33.9
Teacher inequalities	7.6	7.4
The secondary school	10.1	9.6
The grammar school	18.1	17.7
Senior high school teacher sample	44	39
The Present System	35.6	40.4
Teacher inequalities	6.7	6.2
The secondary school	10.3	8.8
The grammar school	17.6	14.6
Bilateral school teacher sample	103	76
The Present System	29.2	35.0
Teacher inequalities	7.1	6.8
The secondary school	10.4	8 8
The grammar school	18.9	16.8
Further education teacher sample	347	109
The Present System	34.3	36.1
Teacher inequalities	6.6	6.5
The secondary school	10.4	10.2
The grammar school	17.3	16.1

Note: the data for 21 teachers whose sex was not recorded are omitted from the table.

DIFFERENCES RELATED TO LENGTH OF TEACHING EXPERIENCE

Five attitude scales showed fairly strong differences in relation to length of teaching experience, for which teachers were classified as first-year probationers, as having one to five years' experience, six to ten years' experience, or more than ten years' experience. Mean scores on these attitude scales are presented by type of school and length of teaching experience in Table 4.4.

Except for the sample of junior high school teachers, the more experienced teachers were on average less critical of the present bipartite system and less convinced of the inefficiency of selection at 11+ than were their less experienced colleagues. Also, again with the exception of the junior high school teachers, the less experienced tended on average to attach greater importance to co-education and religious integration as important principles in any scheme of secondary reorganisation. Younger teachers in primary, grammar, junior high, senior high and bilateral schools, together with younger teachers in further education, tended on average to be more critical of the grammar school than their senior colleagues, whereas in the secondary (intermediate) schools the older teachers tended to be more critical. In all but the junior high schools older teachers were more inclined to regard academic excellence as a primary objective in education.

ATTITUDINAL DIFFERENCES REVIEWED

Two important general findings emerged from the analysis of group differences in teachers' attitudes towards the organisation of secondary education. The first concerned the extent to which attitudes varied independently of group differences; the second related to the consistency with which certain attitudes varied in relation to particular group characteristics.

Those biographical characteristics by which teachers were distinguished in the survey were selected on the basis that they might well be important determinants of teachers' opinions on the organisation of secondary education. In the event, however, such character-

Table 4.4: Mean attitude scores by length of teaching experience and type of school

	less than one year	1-5 years	6-10 years	over 10 years
Primary school sample	53	162	118	385
The Present System	30.7	31.2	33.3	34.6
Coed. and religious integration	10.9	10.9	10.7	10.3
Inefficiency of selection	27.1	27.2	26.2	26.0
The grammar school	18.0	18.1	17.0	17.0
Academic excellence	10.4	10.6	11.0	11.9
Secondary school sample	59	206	155	244
The Present System	31.4	32.0	31.3	32.8
Coed. and religious integration	11.2	11.2	10.9	10.2
Inefficiency of selection	26.2	26.3	26.0	25.4
The grammar school	17.5	17.9	18.1	18.0
Academic excellence	10.5	10.9	10.8	11.4
Grammar school sample	20	129	92	276
The Present System	35.8	36.9	36.6	40.2
Coed. and religious integration	12.3	11.3	11.0	10.3
Inefficiency of selection	24.1	24.2	24.2	22.2
The grammar school	17.9	16.4	16.3	14.8
Academic excellence	11.1	11.3	11.2	12.3
Junior high school sample	13	53	23	66
The Present System	31.3	32.6	37.4	31.8
Coed. and religious integration	11.8	10.9	10.2	11.0
Inefficiency of selection	25.2	25.1	23.4	25.3
The grammar school	18.4	18.2	17.5	17.7
Academic excellence	11.2	10.9	12.1	10.8
Senior high school sample	-	15	27	41
The Present System	-	34.7	38.3	38.7
Coed. and religious integration	-	12.1	11.3	11.0
Inefficiency of selection	-	25.2	22.1	22.1
The grammar school	-	17.9	16.9	15.2
Academic excellence	-	11.6	12.1	12.4
Bilateral school sample	11	56	44	68
The Present System	30.7	30.0	31.3	33.4
Coed. and religious integration	12.4	11.8	11.7	10.6
Inefficiency of selection	26.0	27.2	25.4	25.2
The grammar school	18.8	18.9	18.0	17.1
Academic excellence	10.2	10.5	10.8	11.5
Further education sample	19	124	116	196
The Present System	30.8	33.0	33.1	37.1
Coed. and religious integration	12.5	11.8	11.6	11.4
Inefficiency of selection	25.7	25.3	24.9	22.9
The grammar school	17.4	17.7	17.2	16.5
Academic excellence	10.5	11.3	11.0	12.5

Note: the data for 23 teachers who omitted to record their length of teaching experience have been omitted from the table.

istics accounted, at best, for as little as one sixth of the total variation in teachers' attitudes. It might therefore be concluded that teachers' attitudes with regard to the organisation of secondary education were relatively independent of their biographical characteristics, at least in terms of those attributes included in the present survey.

Where attitudes varied in relation to teacher characteristics they did so most consistently for those attitudes which related to aspects of a selective bipartite system and which had been found in Part 3 to be the most reliably structured of the scales. The result was that teachers in grammar and senior high schools, teachers in schools with a mainly Protestant intake, female teachers and teachers with a more extensive experience of teaching were among the more favourably disposed towards the present system of grammar and secondary (intermediate) schools with selection at 11+. Conversely, teachers in primary, secondary (intermediate) and bilateral schools, teachers in schools with a mainly Roman Catholic intake, male teachers and those with less teaching experience were less favourably disposed towards such a system.

PART 5: ORGANISATIONAL ALTERNATIVES

In the fourth section of the questionnaire, that entitled 'Preferred Structures of Secondary Education', teachers were asked to rank nine alternative forms of secondary school organisation in order of preference. The alternatives were presented as follows:

1. The present system of grammar and secondary (intermediate) schools with selection at 11+.
2. A system of middle schools (9-13) followed by selection for grammar schools at 13+.
3. A system of middle schools (9-13) with transfer to non-selective 13-18 comprehensive schools.
4. A two-tier system of non-selective junior (11-14) and non-selective senior (14-18) high schools.
5. A system of non-selective junior high schools (11-14) followed by selective transfer to senior high schools.
6. A system of 11-16 comprehensive schools followed by transfer to separate academic sixth-form and technical colleges.
7. A system of 11-16 comprehensive schools followed by transfer to sixth-form colleges providing both academic and vocational courses.
8. A system of all-through (11-18) comprehensive schools.
9. Differing forms of secondary reorganisation, as suited to local needs and provision.

Teachers ranked the alternatives from 1 to 9. The ranks awarded to each alternative by each of the seven teacher samples are presented in Tables B3 to B11 of Appendix B. Analysis[1] had shown that

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[1] As with the attitude scales in Part 4, regression analysis was used to identify particular sources of variation in the rankings awarded by teachers to each of the nine alternatives. The results of the analysis are summarised in Table B.12 of Appendix B. Only those teacher attributes which accounted for one per cent or more of variation in the rankings awarded to any alternative are discussed in the text.

Table 5.1. Percentage of teachers approving (+) and disapproving (-) of each of nine alternative structures.

Alternative Structures	Primary (N = 724)		Secondary (N = 670)		Grammar (N = 524)		Junior High (N = 155)		Senior High (N = 83)		Bilateral (N = 180)		Further Ed. (N = 458)	
	+	-	+	-	+	-	+	-	+	-	+	-	+	-
The present system	30	49	23	52	59	24	29	43	64	25	26	58	38	37
Middle school with selection	42	37	31	45	48	25	21	54	43	24	26	57	37	33
Non-selective middle school	17	36	14	37	10	50	18	45	13	45	17	38	7	45
Non-selective two-tier system	21	30	18	27	13	45	37	21	21	37	14	31	16	31
Selective two-tier system	52	11	37	17	41	11	49	12	47	18	27	19	42	12
11-16 with dual transfer	49	9	54	10	32	19	47	10	28	21	51	11	65	6
11-16 with single transfer	45	13	58	12	29	22	47	17	19	31	54	13	50	14
11-18 all through	21	52	34	40	20	56	30	41	41	37	50	33	23	58
Differing forms	16	54	22	48	38	37	19	50	19	53	33	39	16	53

the major source of variation in the rank orders awarded by teachers to the differing alternatives was type of school. In addition, managerial status, Area Board location, sex of teacher and type of teacher training were found to be related to teachers' preferences for particular organisational alternatives.

TEACHER DIFFERENCES

In a previous short report[1] of how teachers had indicated their preferences for the nine alternatives, the ranked preferences were collapsed so that a rank of 1, 2 or 3, when awarded to a particular alternative, was treated as a mark of approval. A rank of 7, 8 or 9 was treated as a mark of disapproval, and a rank of 4, 5 or 6 was treated as a neutral evaluation. In this section, where a number of teacher group differences are illustrated, the same procedure has been applied.

DIFFERENCES RELATED TO TYPE OF SCHOOL

In Table B.3 of Appendix B 13.1 per cent of primary school teachers awarded rank 1 to the present system, 7.0 per cent awarded rank 2, and 9.5 per cent awarded rank 3. These percentages have been combined in Table 5.1 in order to show that 30 per cent of primary school teachers approved of the present system, whereas 49 per cent disapproved. As a further illustration, 3.3 per cent of secondary (intermediate) school teachers in Table B.6 awarded rank 1 to a non-selective two-tier system, 7.3 per cent awarded rank 2, and 7.3 per cent awarded rank 3. These percentages are combined in Table 5.1

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[1] The report, entitled 'Teachers' views on the structure of secondary education in the Spring term of 1976', appeared in January 1977 in the NICER *Information Bulletin* No. 11. It described the sample of teachers who took part in the enquiry, the nine alternative structures presented to the teachers, and how they indicated their preferences for each alternative in turn.

to demonstrate that 18 per cent of secondary (intermediate) school teachers approved of a non-selective two-tier system, as against the 27 per cent who disapproved. Neutral evaluations are omitted from the table.

Table 5.1 illustrates considerable differences of opinion between the various teacher groups. For example, the present system with selection at 11+ was clearly preferred by grammar and senior high school teachers, whereas some form of sixth-form college structure was preferred by secondary school teachers, bilateral school teachers, and teachers in further education. A middle school system followed by selection for grammar school at 13+ found favour with primary, grammar and senior high school teachers, but was disapproved of by secondary, junior high and bilateral school teachers. A selective two-tier system, which found most favour with primary and junior high school teachers, was also approved of by grammar and senior high school teachers, whereas bilateral school teachers were less certain of its merits. An 11-18 all-through comprehensive school system found most favour with bilateral and senior high school teachers, and least favour with primary and grammar school teachers.

Three alternatives failed to evoke other than minority approval from any teacher group. These were a middle school system without selection, a non-selective two-tier system, and the growth of different forms of reorganisation as suited to local needs and provision. The last alternative, the growth of different forms, was least popular with primary school teachers and teachers in further education.

DIFFERENCES RELATED TO MANAGERIAL STATUS AND RELIGIOUS AFFILIATION

Whether teachers were in schools controlled by Area Education and Library Boards or in maintained schools with voluntary management committees was a major source of variation for one organisational alternative, that which referred to the present system of grammar and secondary (intermediate) schools with selection at 11+. These differences are illustrated in Table 5.2, where teachers in the maintained sector are further distinguished by the predominant religious

affiliation of the school, whether Roman Catholic or Protestant. The sample of further education teachers, whose employing institutions were all in the controlled sector, are omitted from the table. Teacher approval and disapproval were calculated on the same basis as in the previous section, with ranks 1, 2 and 3 combined to indicate approval, and ranks 7, 8 and 9 combined to indicate disapproval.

Table 5.2: Percentages of teachers, by school management and religious affiliation, who approved (+) and disapproved (-) of the present system of grammar and secondary (intermediate) schools with selection at 11+. (Numbers of teachers in brackets).

School Type	Area Board controlled	Roman Catholic voluntary	Protestant voluntary
	+(N)-	+(N)-	+(N)-
Primary	(430) 37 37	(287) 17 66	(7) 57 29
Secondary	(286) 32 41	(384) 17 60	(-) - -
Grammar	(98) 71 13	(252) 45 33	(174) 73 16
Junior High	(99) 32 38	(55) 24 51	(-) - -
Senior High	(62) 69 21	(21) 48 38	(-) - -

The percentages in Table 5.2 show that in every type of school teachers in the controlled sector and teachers in the Protestant voluntary sector approved of the present system to a much greater extent than teachers in the Roman Catholic voluntary sector.

Since the controlled sector, though nominally non-denominational, is *de facto* almost entirely Protestant, the evidence points to a strong cleavage of opinion among teachers, on religious lines, with regard to the present system.

Table 5.3. Percentage of teachers by Area Boards and type of school approving (+) and disapproving (-) of two alternative structures.

Area Board / Alternative Structures	Primary (N)		Secondary (N)		Grammar (N)		Bilateral (N)		F.E. (N)	
	+	-	+	-	+	-	+	-	+	-
Belfast	(215)		(94)		(194)		(82)		(152)	
Middle school with selection	41	39	29	52	56	20	33	55	35	36
11-18 all through	23	52	49	33	16	61	40	40	27	49
North-Eastern	(174)		(214)		(87)		(43)		(132)	
Middle school with selection	49	29	37	39	47	25	26	51	46	25
11-18 all through	15	56	33	41	17	56	47	35	16	66
Western	(107)		(133)		(87)		(25)		(28)	
Middle school with selection	45	35	23	51	35	31	16	68	32	29
11-18 all through	21	55	36	37	23	52	52	24	14	68
Southern	(134)		(56)		(95)		(30)		(71)	
Middle school with selection	34	39	36	43	34	36	13	60	25	48
11-18 all through	28	42	29	43	28	41	80	17	32	48
South-Eastern	(87)		(173)		(59)		(-)		(73)	
Middle school with selection	37	43	30	45	68	15	-	-	38	32
11-18 all through	21	58	28	44	17	64	-	-	18	69

Note: the data for 11 teachers whose Area Board was not recorded are omitted from the table.

DIFFERENCES RELATED TO AREA BOARDS

The ranks awarded by teachers to two of the nine alternative structures varied sufficiently among the five Education and Library Boards to justify further examination. The two alternatives were a system of middle schools followed by selection for grammar school at 13+ and a system of 11-18 non-selective schools. Teacher approval and disapproval is illustrated in Table 5.3 by Area Boards and school type for each of the two alternatives. The information is omitted from the table for junior and senior high school teachers, all of whose schools were in the Southern Board Area. The relevant information for these two teacher groups has already been presented in Table 5.1.

The detailed breakdown in the table has resulted in some of the percentages being based on small numbers of teachers, and this will affect the importance that can be attached to such percentages. However, within these limitations the evidence suggests that organisational alternatives preferred by specific types of schools within particular Board Areas were not directionally consistent with those preferred by the same types of schools in other Areas. For instance, whereas primary, secondary (intermediate) and further education teachers in the North-Eastern Board were more in favour of the middle school with selection than their colleagues in other Boards, this structure was most favoured by grammar school teachers in the South-Eastern Board. Moreover, with the exception of bilateral schools, a system of 11-18 all-through comprehensive schools was most popular with secondary (intermediate) school teachers in the Belfast Board Area, where such a system was very strongly disapproved of by the grammar schools teachers, along with their colleagues in the South-Eastern Area.

DIFFERENCES RELATED TO THE SEX OF THE TEACHER

A major sex differences was found for one alternative, that which referred to a system of middle schools (9-13) followed by selection for grammar schools at 13+. The percentages of male and

female teachers who approved or disapproved of this form of structure are shown by type of school in Table 5.4.

Table 5.4: Percentages of teachers by sex and type of school who approved (+) or disapproved (-) of a system of middle schools followed by selection at 13+

Type of school	Male +(N)-	Female +(N)-
Primary	(201) 32 52	(518) 45 31
Secondary	(348) 24 66	(315) 39 32
Grammar	(276) 46 28	(243) 51 22
Junior High	(73) 12 62	(81) 30 48
Senior High	(44) 41 25	(39) 46 23
Bilateral	(103) 16 63	(76) 40 47
Further Education	(347) 35 36	(109) 44 26

Note: the data for 21 teachers whose sex was not recorded are omitted from the table.

In all types of primary and secondary school, as well as in the further education sector, female teachers approved of a middle school system followed by selection for grammar school to a greater extent than their male colleagues. The difference was most marked in bilateral, secondary (intermediate), primary and junior high schools, except that in the last of these the general level of approval for a middle school system with selection was less than in other types of school.

DIFFERENCES RELATED TO TEACHER TRAINING

Differences in the professional training of teachers were a significant source of variation in the ranks awarded to one alternative, the present system of grammar and secondary (intermediate) schools with selection at 11+. The extent to which teachers approved or disapproved of this alternative, in terms of their professional training and the type of school in which they were teaching, is illustrated in Table 5.5. As in all previous comparisons in Part 5, approval is based on the percentage of teachers who awarded ranks 1, 2 and 3, and disapproval is based on the percentage of teachers who awarded ranks 7, 8 and 9.

Table 5.5 has considerable incidental interest insofar as it illustrates how the pattern of teachers' professional qualifications varied across the different school sectors. The majority of teachers in the primary school sample are seen to possess a three-year teacher training certificate. Teachers in the secondary (intermediate), junior high and bilateral schools show a fairly similar staffing mixture of three- and four-year trained teachers, untrained graduate teachers and trained graduates. These last two groups predominate in the grammar and senior high schools. Trained graduates are seen to outnumber untrained graduates in all sectors.

As in Table 5.3, many of the percentages in Table 5.5 are based on small samples of teachers. A further analysis in which type of school was not taken account of had shown that untrained graduate teachers were most approving of the present system, and that four-year trained teachers were least approving. However, it is obvious from Table 5.5 that the untrained graduates who most approved of the present system were those in the grammar and senior high schools, and that the four-year trained teachers who disapproved most strongly of the present system were those in the bilateral, primary, junior high and secondary (intermediate) schools.

Table 5.5. Percentage of teachers by teacher training and type of school approving (+) and disapproving (-) of the present system.

	Primary (N) + -	Secondary (N) + -	Grammar (N) + -	Junior High (N) + -	Senior High (N) + -	Bilateral (N) + -	Further Ed. (N) + -
1. One-year teacher training	(6) 33 67	(27) 15 70	(6) 83 17	(3) 67 0	(-) - -	(5) 20 60	(57) 30 37
2. Two-year teacher training	(123) 36 41	(20) 25 30	(7) 57 14	(10) 40 20	(-) - -	(5) 80 0	(5) 40 40
3. Three-year teacher training	(423) 30 48	(190) 23 51	(41) 63 22	(41) 29 37	(8) 75 25	(39) 33 56	(28) 39 39
4. Four-year teacher training	(56) 23 63	(139) 22 52	(17) 53 24	(34) 18 56	(3) 100 0	(28) 18 64	(15) 27 40
5. Degree(s) without training	(2) 0 50	(64) 33 45	(187) 65 17	(21) 48 38	(31) 68 19	(39) 29 49	(140) 44 32
6. Degree(s) and training	(102) 26 54	(202) 23 55	(248) 56 29	(40) 25 53	(40) 55 33	(60) 20 67	(84) 33 45
7. Other than above, or not given	(12) 33 50	(28) 25 46	(18) 33 28	(6) 17 17	(1) 100 0	(4) 25 75	(129) 40 36

TEACHERS' PREFERENCES REVIEWED

The analysis of teachers' preferences, as summarised in Table B.12 of Appendix B, had shown that the range of ranks awarded by teachers to each of nine alternative systems of secondary school organisation were in every case less predictable from a knowledge of teacher characteristics than might have been anticipated. As with their attitudes towards differing aspects of the organisation of secondary education, the preferences of teachers for a number of alternative systems of secondary school organisation were relatively independent of those personal and professional attributes on which the analysis was based.

Nevertheless, while the majority of teachers were united in their lack of enthusiasm for a wholly non-selective system of secondary education in whatever form, sectional differences between teachers were particularly marked within the secondary education sector. Thus, the selective grammar and senior high schools clearly preferred the present system of grammar and secondary (intermediate) schools with selection at 11+; the non-selective secondary (intermediate) and bilateral school teachers, together with teachers in further education, preferred a sixth-form college structure, and junior high school teachers, with teachers in the primary schools, preferred a two-tier system with selective transfer at 14+.

Teachers' attitudes had focussed most revealingly on aspects of the existing system of grammar and secondary (intermediate) schools with selection at 11+. While the evidence from the analysis of teachers' preferences was wholly consistent with that for the attitudes, it extended the attitudinal analysis in that it permitted teachers to comparatively evaluate a set of alternative structures of which the present system was but one. This is aptly illustrated in relation to sex differences. Whereas the attitudes revealed that female teachers were on average more approving than male teachers of the present system, the preferences indicated that female teachers were more approving than male teachers of a middle school system followed by selection at 13+. Taken together, these findings suggest that,

while female teachers may favour a bipartite system to a greater extent than their male colleagues, they nevertheless, given the choice, would prefer that selection for grammar school should be deferred to the later age of 13+. It seemed as if the greater conservatism among female teachers with regard to fundamental change in the structure of secondary education was accompanied by a greater willingness to modify the existing structure on the basis, perhaps, of a perception of pupil readiness for transfer from primary to secondary education which differed from that of their male colleagues.

PART 6: PREFERENCES AND ATTITUDES

It was shown in Part 5 that the extent to which teachers' preferences varied in relation to certain teacher group differences was less than might have been anticipated. As with teachers' attitudes, differences between teacher characteristics failed to account for more than one-sixth of the total variation in teachers' preferences for any of the nine alternatives. In the first section of Part 6, therefore, type of school differences within the secondary education sector are set aside in favour of an examination of the extent to which a measure of consensus existed among teachers in the three sectors of primary, secondary and further education, as well as for all three sectors combined.

In Part 5 and the first section of Part 6 teachers' preferences are presented in terms of general approval and disapproval, the former based on the sum of ranks 1, 2 and 3, the latter on the sum of ranks 7, 8 and 9. In the second section of Part 6, that entitled 'Distribution of Ranks for the Total Population', percentage estimates for the population of teachers in primary, secondary and further education are presented for each of the nine ranks awarded to each alternative structure.

In the third section, 'Preferences and Attitudes Compared', the thirteen attitude scales and the nine ranked alternatives are intercorrelated and factor analysed in order to determine the extent to which attitudes and preferences, as differing forms of teacher evaluation, were based on shared as well as distinct perspectives with regard to the organisation of secondary education.

PRIMARY, SECONDARY AND FURTHER EDUCATION

In this analysis the five teacher groups which represented the

secondary school sector were merged[1] to provide percentage estimates of teacher approval and disapproval for the population of teachers in secondary education. For teachers in primary and further education the best population estimates were those provided by their respective samples in Table 5.1. The three sets of estimates are shown in Table 6.1, together with a set of estimates for the population of primary, secondary and further education teachers combined.

Table 6.1: Percentage population estimates of teachers approving (+) and disapproving (-) of each of nine alternative structures

Alternatives	Primary		Secondary		Further Education		All three sectors	
	+	-	+	-	+	-	+	-
The present system	30	49	36	42	38	37	34	45
Middle school with selection	42	37	36	39	37	33	39	38
Non-selective middle school	17	36	13	42	7	45	14	40
Non-selective two-tier system	21	30	17	33	16	31	19	32
Selective two-tier system	52	11	38	15	42	12	45	13
11-16 with dual transfer	49	9	46	13	65	6	49	11
11-16 with single transfer	45	13	47	13	50	14	47	15
11-18 all-through	21	52	30	45	23	58	26	49
Differing forms	16	54	28	44	16	53	22	49

[1] Percentages of approval and disapproval were merged by weighted summation across groups. For the population of teachers in secondary education the weights, as percentages or decimal fractions, were derived as follows: of the population of 8,998 teachers in post-primary schools, 5,009 teachers, or 55.7 per cent or 0.557 as a decimal fraction, were in secondary (intermediate) schools; 3,025 teachers, or 33.6 per cent, were in grammar schools; 348 teachers, or 3.9 per cent, were in junior high schools; 93 teachers, or 1.0 per cent, were in senior high schools, and 524 teachers, or 5.8 per cent, were in bilateral schools. For estimates based on the combined population of 18,432 teachers in primary, secondary and further education the weights were based on the proportional sizes of the seven sub-populations. All population figures are taken from Table 1.1.

With school differences in the secondary education sector merged in a common set of estimates, a considerable degree of consensus emerged among the three sectors. In each sector the same three alternatives, representing forms of deferred selection or transfer, were preferred; the same four alternatives, three of which were structural variants of a wholly non-selective system, were rejected, and the same two alternatives, both of which involved forms of early selection, showed teachers as equally divided with regard to selection at 13+, and rather more against than for selection at 11+.

In the final column the same order of preference persists for the combined population of teachers. First in order of preference was a sixth-form college structure with separate academic and technical colleges. Second was a sixth-form college structure which combined academic and vocational provision in the one structure. Third was a two-tier system which incorporated selective transfer at 14+. Fourth was a middle school system with selection for grammar school at 13+. Fifth was the present system with selection for grammar school at 11+. What emerged, therefore, was a preference for a system which is selective rather than non-selective, but in which at the same time selection is deferred as long as possible in order that it may take account of pupils' demonstrated aptitudes and vocational interests.

DISTRIBUTION OF RANKS FOR THE TOTAL POPULATION

Teacher approval and disapproval for alternative structures, as presented in Part 5 and the first section of Part 6, were based on the collapsing of ranks 1, 2 and 3 to indicate approval and the collapsing of ranks 7, 8 and 9 to indicate disapproval. By contrast, Table 6.2 shows the percentage of teachers who awarded each of nine ranks to each of the nine alternatives. These percentages, as estimates for the combined population of teachers in primary, secondary and further education, were obtained by the method of weighted summation from the percentages in Tables B.3 to B.11 of Appendix B.

Table 6.2: Percentage rank orders awarded to each of nine alternative structures for the population of teachers in primary, secondary and further education.

Nine alternative structures	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Rank 8	Rank 9	Unranked
1. The present system	17	8	8	6	7	6	6	12	26	3
2. Middle school with selection	16	15	8	7	7	7	15	17	6	3
3. Middle school without selection	4	5	6	10	14	19	19	15	6	3
4. Non-selective two-tier system	4	8	7	15	15	16	16	11	5	3
5. Selective two-tier system	16	13	16	13	13	13	9	4	1	3
6. 11-16 with dual transfer	12	19	18	17	13	8	6	3	1	3
7. 11-16 with single transfer	12	20	15	14	14	9	8	6	1	3
8. 11-18 all through	10	5	10	7	8	7	8	14	27	3
9. Differing forms	8	6	8	9	7	10	10	16	24	4

It should also be noted that where the sum of the percentages for ranks 1, 2 and 3, and the sum of percentages for ranks 7, 8 and 9 are not precisely the same for each alternative as those in the final column of Table 6.1, this has resulted from cumulative rounding error in the summing of the percentages from Table 6.2.

The first two alternatives illustrate the extent to which teachers' preferences were polarised with regard to systems based on selection at 11+ or 13+. While this polarisation must reflect the sectional differences already observed among teachers in the secondary education sector, this is only part of the explanation. As an inspection of Tables B.3 and B.4 in Appendix B will show, teacher preferences for these two structures were also polarised within school types, particularly in the primary and further education sectors.

The third and fourth alternatives, a middle school system without selection, and a non-selective two-tier system, have a similar pattern of preferences in the table. Both structures were heavily endorsed in the rank range of from four to eight, a range which may be viewed as moving from uncommittedness or uncertainty towards distinct unpopularity.

The three alternatives of a selective two-tier system, a system of 11-16 schools with dual transfer, and a system of 11-16 schools with single transfer, all show a pattern of preferential endorsement. By contrast, the alternatives of an 11-18 non-selective school system, and differing forms of reorganisation as suited to local needs and provision were both strongly rejected within the context of the nine options made available.

PREFERENCES AND ATTITUDES COMPARED

Part 3 was concerned with the structure of teachers' attitudes as expressed in their responses to the 66 items which made up the

Table 6.3: Factor Structure for Preferences and Attitudes

Preferences and Attitudes	Factor loadings I	II	III	IV	V	VI
PREFERENCES						
The present system	81	06	-16	-07	11	20
Middle school with selection	40	26	-26	-07	68	-04
Middle school without selection	-38	-21	-38	05	37	-49
Non-selective two-tier system	-39	24	-34	06	-34	-44
Selective two-tier system	08	78	-07	-06	07	-12
11-16 with dual transfer	-20	-04	84	01	-16	-12
11-16 with single transfer	-34	-26	72	02	-20	-13
11-18 all-through	-36	-61	06	13	-46	-10
Differing forms	01	-07	-20	-06	-10	89
ATTITUDES						
The present system	85	20	-10	02	15	15
The middle school	-26	05	-09	16	69	-11
The all-through comprehensive	-30	-52	-02	19	-32	-10
A two-tier system	01	59	-02	32	-05	03
Co-education and religious integration	09	-07	11	58	18	-06
Transfer at 16+	-06	09	56	34	06	09
Inefficiency of selection at 11+	-82	02	09	10	07	-09
The comprehensive principle	-45	-16	11	50	-03	-10
Teacher inequalities in a two-tier system	07	-35	02	33	13	23
Critique of the secondary school	-65	00	06	06	09	12
Critique of the grammar school	-71	-08	09	25	-02	-01
Academic excellence	59	15	-05	26	06	03
The school as change agent	-19	13	02	55	-16	-03
Percentage variance	20.4	9.5	9.1	6.1	7.8	6.7

Note: decimal points omitted for factor loadings

first three sections of the questionnaire. At that stage fifteen factors were identified, and these were used as a basis for selecting the thirteen most reliable attitude scales. The extent to which teachers' responses on the thirteen scales were related to their orders of preference for the nine alternative structures was examined by means of a factor analysis[1], the results of which are presented in Table 6.3.

The first factor in the table was clearly related to the present system of bipartite schools with selection at 11+. It demonstrated the existence of a continuum of teacher opinion which, at the one extreme, preferred and approved of the present system, was uncritical of selection at 11+, was convinced that grammar and secondary (intermediate) schools were fairly and adequately providing for their respective intakes, and held that academic excellence should be the primary concern of the secondary education system. At the other extreme it registered a point of view which was hostile towards the present system, rejected selection at 11+, was critical of particular aspects of the grammar and secondary (intermediate) schools, and rejected the view that the proper function of a school is to nurture academic excellence and provide the future leaders of society.

The second factor indicated that teacher preference for a two-tier system of junior and senior high schools with selective transfer at 14+ was associated with a more favourable attitude towards a two-tier structure, less concern about teacher inequalities within a two-tier system, scant regard for an 11-18 all-through comprehensive system, and an unfavourable attitude towards such a structure.

The third factor brought together preferences for the two sixth-form alternatives as well as teachers' attitudes to transfer at 16+. The main interest of this factor lay in its indicating that if a teacher approved of transfer at 16 to separate academic and tech-

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[1] A principal components' analysis of the 13 attitudes and 9 preferences yielded six components with eigen values in excess of unity. These were rotated by Varimax to the structure presented in Table 6.3, which accounts for 60.1 of the total variance.

nical colleges, he was equally likely to approve of transfer to a college which provided academic and vocational courses. Teachers were therefore seen to differ on the issue of transfer at 16+ rather than on the issue of whether such transfer should be to a single or dual sixth-form college structure.

The fourth factor indicated that those teachers who regarded coeducation and religious integration as important issues in secondary reorganisation were more likely to see the school as an agent of social change, were more likely to approve of comprehensive education in principle, and were also likely to be somewhat more approving of both a two-tier system and transfer at 16+.

The fifth factor indicated that those teachers who preferred a system of middle schools followed by selection for grammar school at 13+, and who were favourably disposed towards a middle school structure, also tended to disapprove of a system of 11-18 all-through comprehensive schools.

The sixth factor indicated that those teachers who favoured the development of differing forms of reorganisation as suited to local needs and provision also tended to be unfavourably disposed towards a system of middle schools followed by non-selective transfer to a system of 13-18 schools, and unfavourably disposed towards a two-tier system of junior and senior high schools with non-selective transfer at 14+.

PREFERENCES AND ATTITUDES REVIEWED

When teachers in the three sectors of primary, secondary and further education were offered a choice of nine alternative organisational structures they were least in favour of alternatives which were wholly non-selective or which were adapted to local needs. They were divided with regard to a system of grammar and secondary (intermediate) schools, irrespective of whether selection for grammar school was at 11+ or 13+. The two systems which won most general

approval were a system of 11-16 schools followed by transfer to a sixth-form college structure, and a two-tier system of junior and senior high schools with selective transfer from the former to the latter at 14+.

Teachers in favour of a system of transfer at 16+ were equally prepared to endorse the alternatives of transfer to sixth-form colleges which provided both academic and vocational courses, and transfer to separate academic sixth-form and technical colleges. On the other hand, teachers who preferred a selective two-tier system were more likely to reject an 11-18 all-through system.

Teachers' preferences and attitudes dovetailed on a number of issues. Foremost among these was the close accord between a preference for or rejection of the present system of grammar and secondary (intermediate) schools with selection at 11+, a favourable or unfavourable attitude towards the present system and selection at 11+, approval or disapproval of the roles of the grammar and secondary (intermediate) schools, and concern or otherwise about the issue of academic standards. These were among the most reliable and discriminating of the expressed attitudes. In conjunction, they emphasised once again that the one area of secondary school organisation on which teachers' views were expressed most forthrightly and consistently, as well as the issue on which teachers' views polarised most sharply, was that of the present selective bipartite system.

PART 7: FINDINGS AND IMPLICATIONS

Shortly after the decision to proceed with the present investigation was taken by the Research Council the Minister of State for Education announced that the Department of Education was to undertake a feasibility study into forms of secondary reorganisation. The results of the feasibility study have been reported within the Department of Education's Consultative Document, *Reorganisation of Secondary Education in Northern Ireland*, which also called for full and widespread public discussion of the issues involved. Events have therefore conspired to make the findings of the NICER investigation of more than usual interest.

As it is both timely and proper that the findings should contribute to the current debate on the future structure of secondary education in Northern Ireland, it is necessary to make one important qualification. When the investigation was planned and its questionnaire devised the Consultative Document's dual system of 11-16 and 11-18 schools had not been suggested as a solution to the problem of reorganisation. It was therefore not included among the alternative systems which teachers were asked to evaluate. It must therefore be stated that there does not appear to be any evidence from the enquiry which could be interpreted as considered teacher comment on the Consultative Document's suggested structure.

Another point worth emphasising concerns the basis on which the evidence was collected. The particular advantage of the present investigation is that it was carried out among representative samples of teachers. This made possible an accurate assessment of teacher opinion within particular sectors of the teaching profession as well as overall. The evidence thus made available should therefore usefully complement the many arguments and expressions of opinion currently being advanced in favour of one system of organisation or another.

The findings have already been examined in considerable detail. This part of the report therefore draws attention to the more general

results which emerge from the two main sources: teachers' attitudes towards aspects of secondary education, and teachers' preferences for certain organisational alternatives. In particular it seeks to high-light areas where teacher opinion was divided as well as those areas where teachers were in broad agreement.

Teacher opinion was divided most strongly with regard to a bipartite system of grammar and secondary (intermediate) schools, irrespective of whether selection for the former took place at 11+ or two years later at the end of a middle school stage. This polarisation of opinion with regard to early selection ran through much of the evidence. It was clear, for example, that teachers' preferences for and against the present system with selection at 11+ were closely in accord with their attitudes towards bipartiteism, the selection procedure, and the respective roles of grammar and secondary (intermediate) schools.

Some of this polarisation with regard to early selection was reflected in sectional differences of opinion within the secondary education sector. Thus, teachers in the selective grammar and senior high schools clearly preferred, and were much more favourably disposed towards, a selective bipartite system than were teachers in the non-selective secondary (intermediate), junior high and bilateral schools. Again, but irrespective of education sector or school type, teachers in predominantly Protestant schools were much more favourably disposed towards the present system than were teachers in Roman Catholic schools. In addition, female teachers were more approving of a system of middle schools followed by selection for grammar school at 13+ than were male teachers. Nevertheless, since such differences accounted for only a small proportion of the major division of opinion, it was equally clear that the polarisation of teacher opinion with regard to early selection represented a more fundamental cleavage than might be attributed to sectional interest or loyalties.

If teachers were divided with regard to selection at an early stage in children's secondary school careers, they were united in their lack of enthusiasm for three forms of wholly non-selective

system and a fourth alternative, that of differing forms of secondary reorganisation as suited to local need and provision.

The three wholly non-selective systems were a middle school system followed by non-selective transfer at 13+, a two-tier system with non-selective transfer at 14+, and a non-selective 11-18 all-through system. The last alternative found some slight favour with teachers in bilateral and senior high schools. It is also of interest to note that while teachers as a majority endorsed the principle of local development, they were also agreed that lack of central direction would encourage the growth of piecemeal forms of school organisation. Moreover, when it came to a choice among the nine alternative structures, the growth of differing forms of reorganisation as suited to local needs and provision came well down the list in the order of preference of most teachers.

The three alternatives which proved most popular with primary, secondary and further education teachers were a system of 11-16 comprehensive schools followed by transfer to separate academic sixth-form and technical colleges, a system of 11-16 comprehensive schools followed by transfer to sixth-form colleges providing both academic and vocational courses, and a two-tier system of junior and senior high schools with selective transfer at 14+. Since it was clear that those teachers who favoured one type of sixth-form college structure also favoured the other, it can be concluded that within each of the three sectors, as well as overall, popular choice lay between a structure based on selective transfer at 14+ and a structure based on academic/vocational transfer at 16+.

In general, therefore, teachers were least attracted towards any form of wholly non-selective system. They were deeply divided with regard to a bipartite system of grammar and secondary schools based on selection at 11+ or 13+. They achieved a degree of consensus with regard to some form of deferred selective transfer, as at age 16 when pupils might transfer to a sixth-form college structure, or at age 14, when pupils might transfer from junior to senior high school.

However, such consensus emerged at the secondary stage only when sectional interests were ignored. It was obvious, for example, that selection at 14+ was very much of a 'second best' for grammar and senior high school teachers, since the majority of these teachers preferred the present system of grammar and secondary (intermediate) schools with selection at 11+, and only a minority showed any enthusiasm for a sixth-form college structure.

The 'voting pattern' of the senior high school teachers was of particular interest. These senior high schools were former grammar schools in the Craigavon area where a two-tier system with selective transfer at 14+ was introduced in the late 1960's. Some ten years later the teachers in these schools are seen to be even more in favour of bipartiteism and selection at 11+ than their grammar school colleagues. This evidence must therefore be viewed in the light of the by now well-substantiated premise that organisational change can only hope to succeed when the attitudes of key participants, in this case the teachers, are in sympathy with such change.

It has already been pointed out that the enquiry has nothing to report with regard to the dual structure of 11-16 and 11-18 schools proposed in the Department of Education's Consultative Document. It does have something to say with regard to two alternative systems, both of which were referred to in the Consultative Document, and both of which were evaluated by teachers in the course of the enquiry.

The Consultative Document had suggested that the two-tier system developed in the Craigavon area might remain except that selection at 14+ should be replaced by choice and that senior high schools should become comprehensive 14-18 schools. This would seem to imply that the former Craigavon procedure of selective transfer at 14+ to senior high school or technical college should be replaced by choice at 14+ between a comprehensive 14-18 school and technical college. While the term 'choice' is open to a considerable latitude of interpretation, the evidence from the present investigation suggests that many teachers would prefer a more overtly selective procedure at 14+

than that recommended, together with a more overt recognition of the academic nature of the second tier school than the term 'comprehensive' implies.

Foremost among the reasons advanced in the Consultative Document against the establishment of sixth-form or tertiary college structures was the opposition of a considerable body of educational opinion to such a proposal. This conclusion was thoroughly refuted in the enquiry, where such a structure, designed to follow on from non-selective 11-16 schools, was the most popular of all the alternatives presented to teachers. Whatever the tactical disadvantages of such a system, there can be no doubt that many teachers saw it as a way of providing maximum opportunity, both academically and vocationally, for pupils at the completion of compulsory education.

The 1973 Report of the Advisory Council for Education, *Reorganisation of Secondary Education in Northern Ireland*, had concluded that the best form of restructuring would be one adapted to the needs of individual localities and one which would make most effective use of existing facilities. The Advisory Council reached this conclusion having examined the arguments for and against a variety of structures, and having noted that there was little evidence as to the type of alternative structure preferred by those calling for change.

As we have seen, the Advisory Council's compromise solution turned out to be one of the least popular alternatives, though there was general agreement that the economical use of existing school buildings should be a major consideration in any scheme of reorganisation, and that any such scheme should seek to incorporate the voluntary grammar schools.

The NICER evidence indicated the extent to which teachers were divided on the issue of change, and the extent to which they had reservations about alternative forms of non-selective organisation. Equally importantly, it showed that teachers were least opposed to, and in many cases actively in favour of, the alternatives of deferred

selection at 14+ or academic/vocational transfer at 16+. By thus identifying areas of consensus as well as those areas where views conflicted the evidence goes some way towards indicating the kinds of secondary school organisation that teachers, at least, may be willing to accept for the province.

SELECT BIBLIOGRAPHY

BILL, J.M., TREW, K.J. and WILSON, J.A. (1974). *Early Leaving in Northern Ireland*. Belfast: The Northern Ireland Council for Educational Research.

CRONBACH, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.

DEPARTMENT OF EDUCATION (Northern Ireland) (1976). *Reorganisation of Secondary Education in Northern Ireland*. A Consultative Document issued by the Department of Education. July 1976. Belfast: HMSO.

DONAGHY, T. (1970). A Study of the Secondary School System of Northern Ireland, 1947-1969, with particular reference to developments of a quasi-comprehensive nature. Unpublished MA thesis. Queen's University of Belfast.

EDWARDS, H.L. (1957). *Techniques of Attitude Scale Construction*. New York: Appleton Century-Crofts.

McNEILLY, N. (1973). *Exactly Fifty Years: The Belfast Education Authority and its Work (1923-73)*. Belfast: The Blackstaff Press.

MINISTRY OF EDUCATION (Northern Ireland) (1964). *Educational Development in Northern Ireland*. Belfast: HMSO. Cmd. 470.

MINISTRY OF EDUCATION (Northern Ireland) (1964). *Secondary School Organisation, Conditions of Recognition, Supply of Teachers and Selection Procedure*. Four short reports of the Fifth Advisory Council for Education in Northern Ireland. Belfast: HMSO. Cmd. 471.

MINISTRY OF EDUCATION (Northern Ireland) (1970). *Education in Northern Ireland in 1970*. Belfast: HMSO. Cmd. 559.

MINISTRY OF EDUCATION (Northern Ireland) (1971). *The Existing Selection Procedure for Secondary Education in Northern Ireland*. A Report of the Seventh Advisory Council for Education in Northern Ireland. Belfast: HMSO. Cmd 551.

MINISTRY OF EDUCATION (Northern Ireland) (1973). *Reorganisation of Secondary Education in Northern Ireland*. A report of the Seventh Advisory Council for Education in Northern Ireland. Belfast: HMSO. Cmd. 574.

SPELMAN, B.J. (1975). Developments in post-primary education in Northern Ireland: a research perspective. *The Northern Teacher*. 11, 4, 3-8.

WILSON, J.A. (1977). Teachers' views on the structure of secondary education in the Spring term of 1976. *Information Bulletin No. 11*. Belfast: The Northern Ireland Council for Educational Research.

THE NORTHERN IRELAND COUNCIL

FOR

EDUCATIONAL RESEARCH

TEACHER OPINION SURVEY

ON

THE ORGANISATION OF SECONDARY EDUCATION

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TEACHER OPINION SURVEY

ON

THE ORGANISATION OF SECONDARY EDUCATION

INTRODUCTION

This survey of teacher opinion on the organisation of secondary education is part of an on-going NICER programme of enquiry into developments in forms of secondary school organisation in Northern Ireland. The questionnaire is in five sections. Statements presented in the first two sections, *The Present System* and *Organisational Alternatives*, are based largely on the arguments examined in the 1973 Report of the Advisory Council for Education, 'Reorganisation of Secondary Education in Northern Ireland.' The statements in the third section, *Purposes and Processes in Secondary Education*, are based on a sampling of points of view which have found frequent expression in the educational literature.

You are asked to record your considered opinion with regard to <u>every</u> statement in the first three sections. This should be done by indicating, on a five-point scale, the extent of your agreement or disagreement with each statement as it is expressed. The category which corresponds to the strength of your opinion should be <u>circled</u> in keeping with the coding key.

For the sake of brevity a descriptive short-hand has been used, particularly in statements which refer to certain forms of school organisation. In order to clarify this short-hand a glossary of terms is included, and this should be consulted before statements are evaluated.

In the fourth section, *Preferred Structure of Secondary Education*, you are asked to place nine organisational alternatives in order of choice. The final section, *Biographical Information*, asks for details of your past and present experience as a teacher. These details are requested on the understanding that they will be treated as confidential. They are required for the analysis and presentation of the findings as a representative spectrum of teacher opinion on the organisation of secondary education.

It is important that the questionnaire should be completed individually rather than in consultation with colleagues. Also, to ensure confidentiality, the completed questionnaire should be sealed in the envelope provided, before being returned to the Principal or member of staff entrusted with its return to the NICER Research Unit. Thank you for your attention to these details, and for your co-operation in completing the questionnaire.

GLOSSARY OF TERMS

the present system:	refers to the system of selective grammar and non-selective secondary (intermediate) schools, in which the majority of pupils of secondary school age are currently enrolled.
the Selection Procedure:	refers to the current system of selection at 11+, whereby pupils are selected for a grammar school education on the basis of verbal reasoning scores combined with scaled teachers' estimates of pupil suitability for grammar school education.
the Review Procedure:	refers to the current system whereby pupils in their first and subsequent years of secondary education may be recommended by heads of schools for 'selected' status on the basis of their record of progress in grammar or secondary school.
the middle school:	a system of non-selective post-primary and pre-secondary stage schools in which pupils are enrolled at age 9 and from which they transfer to secondary education at age 13.
two-tier system:	a system of non-selective junior high schools in which all pupils are enrolled from ages 11 to 14, followed by selective/non-selective transfer to senior high schools at age 14+.
sixth-form college structure:	non-selective comprehensive school to age 16, followed by transfer to a sixth-form college structure (academic sixth-form college and technical college/academic and vocational sixth-form college).
all-through comprehensive:	non-selective schools which make provision for all pupils between the ages of 11 and 18.

THE PRESENT SYSTEM

	Circle as appropriate*	Leave blank
1. The present system has successfully encouraged the development of forms of school organisation appropriate to a wide range of pupil abilities, aptitudes and interests.	SA A U D SD	
2. Mistakes in selection are effectively remedied through the Review Procedure and arrangements for transfer of pupils between types of school.	SA A U D SD	
3. Selection at 11+ offers an efficient means of making an academic education available to able children.	SA A U D SD	
4. The Review Procedure operates unfairly in favour of the grammar school fee-payer.	SA A U D SD	
5. The present system permits teachers to choose the type of school most suited to their interests.	SA A U D SD	
6. Selection at 11+ is inefficient in that some pupils who are selected are subsequently unsuccessful at grammar school.	SA A U D SD	
7. The provision of different types of school within the present system is wasteful of educational resources.	SA A U D SD	
8. By providing opportunities for able children from less advantaged backgrounds, selection operates as an effective instrument of social justice.	SA A U D SD	
9. Selection at 11+ is inefficient in that some pupils who are rejected are subsequently successful academically.	SA A U D SD	
10. By comparison with a uniform system of comprehensive schools the present system gives greater freedom of choice to parents.	SA A U D SD	

* SA: Strongly Agree; A: Agree; U: Uncertain; D: Disagree; SD: Strongly Disagree.

	Circle as appropriate*	Leave blank
11. By placing a premium on examination success, the secondary (intermediate) schools have neglected their responsibilities towards the less academic child.	SA A U D SD	
12. 11+ is the most appropriate age for transfer from primary to secondary education.	SA A U D SD	
13. The middle-class characteristics of the grammar schools place children from less privileged backgrounds at an educational disadvantage.	SA A U D SD	
14. Within the present system available financial resources are fairly distributed in relation to the needs of different types of school.	SA A U D SD	
15. The less academic child is best provided for by the existing secondary (intermediate) school system.	SA A U D SD	
16. The verbal reasoning test as part of the Selection Procedure has resulted in an undue emphasis on 'coaching for intelligence' in the primary school.	SA A U D SD	
17. Selection at 11+ results in success for an able minority of pupils at the cost of labelling the majority as academic failures.	SA A U D SD	
18. The present system has led to a disproportionate concentration of teachers with high academic qualifications in the grammar schools.	SA A U D SD	
19. Access to grammar schools on a fee-paying basis reinforces socio-economic differences in educational opportunity.	SA A U D SD	
20. In the present system a teacher's status tends to be judged by the type of school in which he works.	SA A U D SD	
21. The grammar school system provides the most suitable environment for the promotion and preservation of high academic standards.	SA A U D SD	

* SA: Strongly Agree; A: Agree; U: Uncertain; D: Disagree;
SD: Strongly Disagree.

ORGANISATIONAL ALTERNATIVES

	Circle as appropriate*	Leave blank
THE MIDDLE SCHOOL (9-13)		
1. A system of middle schools offers the best solution to the lack of readiness of many pupils for transfer to post-primary education at 11+.	SA A U D SD	
2. The benefits of the middle school are outweighed by the disadvantages which would result from introducing two transfer stages, at ages 9 and 13.	SA A U D SD	
3. The upper levels of the present primary school system should be incorporated in a separate system of middle schools.	SA A U D SD	
4. The middle school provides an effective means of linking the work of the upper primary school with that of the lower forms in post-primary education.	SA A U D SD	
5. Because of their limited age range, middle schools would have difficulty in attracting specialist teachers in certain subjects.	SA A U D SD	
6. The development of junior transition departments in post-primary schools is preferable to the introduction of a separate system of middle schools.	SA A U D SD	
THE TWO-TIER SYSTEM OF 11-14 JUNIOR AND 14-18 SENIOR HIGH SCHOOLS		
7. The adaptation of the present system of grammar and secondary schools to a two-tier comprehensive structure is an acceptable solution to the problem of secondary reorganisation.	SA A U D SD	
8. In a two-tier system the senior high school would attract a disproportionate share of teacher resources from the junior high school.	SA A U D SD	
9. Transfer at 14+ in a two-tier system is likely to aggravate problems of adjustment during adolescence.	SA A U D SD	
10. In a two-tier system of secondary reorganisation, the most appropriate role for secondary intermediate schools should be as junior high schools for the 11-14 age group.	SA A U D SD	

* SA: Strongly Agree; A: Agree; U: Uncertain; D: Disagree;
SD: Strongly Disagree.

	Circle as appropriate*	Leave blank
11. In a two-tier system of secondary reorganisation, the most appropriate role for the voluntary grammar schools should be as senior high schools for the 14-18 age group.	SA A U D SD	
12. Selection at 14+ would be an acceptable feature within a two-tier comprehensive structure.	SA A U D SD	
THE ALL-THROUGH COMPREHENSIVE SCHOOL (11-18)		
13. The all-through comprehensive school provides a continuity of relationships for pupils and teachers throughout the period of adolescence.	SA A U D SD	
14. Many pupils may become increasingly bored in the unchanging environment of the all-through comprehensive school.	SA A U D SD	
15. The continuity of the all-through comprehensive school would encourage a greater proportion of pupils to remain in full-time education beyond the school leaving age.	SA A U D SD	
16. In order to provide an adequate range of opportunity for sixth-form specialisation, the all-through comprehensive school would need an excessively large pupil intake.	SA A U D SD	
A SYSTEM OF 11-16 COMPREHENSIVE SCHOOLS FOLLOWED BY ALTERNATIVE SIXTH-FORM STRUCTURES		
17. By contrast with other forms of secondary reorganisation, the present school leaving age makes transfer at 16 to a sixth-form structure a suitable transition stage.	SA A U D SD	
18. A system of transfer at age 16 to academic sixth-form colleges should be complemented by transfer to technical colleges for those students wishing to pursue vocational courses.	SA A U D SD	
19. Reorganisation at the sixth-form level provides an ideal opportunity to promote the religious integration of students in the 16-18 age group.	SA A U D SD	
20. A sixth-form college should provide, both academically and vocationally, for all full-time students in the 16+ age range.	SA A U D SD	

* SA: Strongly Agree; A: Agree; U: Uncertain; D: Disagree; SD: Strongly Disagree.

PURPOSES AND PROCESSES IN SECONDARY EDUCATION

		Circle as appropriate*	Leave blank
1.	In the life of the school, provision for guidance and counselling is of equal importance with concern for academic standards.	SA A U D SD	
2.	The economical use of existing school buildings should be a major consideration in any scheme of secondary reorganisation.	SA A U D SD	
3.	No system of education which treats all children alike can possibly produce the future leaders of society.	SA A U D SD	
4.	Any tiered system of secondary reorganisation may result in unacceptable differences in scale post allowances within the teaching profession.	SA A U D SD	
5.	Only by providing pupils with a common fund of shared experiences can education prepare them to be members of one community.	SA A U D SD	
6.	Any scheme of secondary reorganisation should seek to incorporate the voluntary grammar schools.	SA A U D SD	
7.	Co-education should be regarded as an important principle of any scheme of secondary reorganisation.	SA A U D SD	
8.	The rigid allocation of pupils to different types of school at 11+ is in conflict with the continuing assessment of their special talents and disabilities.	SA A U D SD	
9.	School systems reflect rather than create inequalities within society.	SA A U D SD	
10.	The academic advantages outweigh any adverse effects of grouping pupils by ability.	SA A U D SD	
11.	Any scheme of secondary reorganisation which tolerates the segregation of pupils on religious grounds does not merit the label 'comprehensive.'	SA A U D SD	
12.	Competitiveness in schooling provides a useful introduction to adult life by teaching children that if they wish to succeed they must strive for excellence.	SA A U D SD	

* SA: Strongly Agree; A: Agree; U: Uncertain; D: Disagree;
SD: Strongly Disagree.

	Circle as appropriate*	Leave blank
13. The Selection Procedure, while defining the function of the grammar school, has failed to provide the secondary (intermediate) school with any distinctive purpose.	SA A U D SD	
14. The grammar school curriculum is socially divisive in that it gives priority to the cultural requirements of one social class.	SA A U D SD	
15. In any scheme of secondary reorganisation schools should be encouraged to evolve in directions best suited to local needs and provision.	SA A U D SD	
16. Comprehensive education attempts to ignore the fact that some children are more gifted than others.	SA A U D SD	
17. A major purpose of education is to provide society with leaders of high moral and intellectual character.	SA A U D SD	
18. The establishment of neighbourhood-based comprehensive schools catering for a local intake would perpetuate social differences between communities.	SA A U D SD	
19. The number of 'O' and 'A' level successes obtained in the G.C.E. examination is the most important index of a school's effectiveness.	SA A U D SD	
20. Selective academic education fosters in its pupils social values based on competition rather than co-operation.	SA A U D SD	
21. A comprehensive school should be guaranteed a pupil intake which is representative of all social classes.	SA A U D SD	
22. Very able pupils are unlikely to give of their best academically in any type of comprehensive school.	SA A U D SD	
23. The educational system is a potential force for change in society.	SA A U D SD	
24. Lack of central direction will encourage the growth of piecemeal forms of school organisation at the secondary stage.	SA A U D SD	
25. In the Northern Ireland context, the problem of religious rather than social integration should be the more immediate concern of any scheme of secondary reorganisation.	SA A U D SD	

* SA: Strongly Agree; A: Agree; U: Uncertain; D: Disagree;
SD: Strongly Disagree.

PREFERRED STRUCTURE OF SECONDARY EDUCATION

You are asked to rank each of the following nine alternative forms of secondary school organisation in order of preference. This should be done by placing the number 1 ([1]) in the box opposite the most preferred, and the number 9 ([9]) in the box opposite the least preferred form. Continue by indicating your second and eighth preferences, your third and seventh preferences, etc., until all alternatives have been ranked 1 to 9.

	Leave blank
1. The present system of grammar and secondary (intermediate) schools with selection at 11+.	☐
2. A system of middle schools (9-13) followed by selection for grammar schools at 13+.	☐
3. A system of middle schools (9-13) with transfer to non-selective 13-18 comprehensive schools.	☐
4. A two-tier system of non-selective junior (11-14) and non-selective senior (14-18) high schools.	☐
5. A system of non-selective junior high schools (11-14) followed by selective transfer to senior high schools.	☐
6. A system of 11-16 comprehensive schools followed by transfer to separate academic sixth-form and technical colleges.	☐
7. A system of 11-16 comprehensive schools followed by transfer to sixth-form colleges providing both academic and vocational courses.	☐
8. A system of all-through (11-18) comprehensive schools.	☐
9. Differing forms of secondary reorganisation, as suited to local needs and provision.	☐

BIOGRAPHICAL DETAILS

For each of the following queries please enter a tick (✓) in the appropriate box, except where otherwise indicated.

Leave blank

1. Type of school where presently employed:
   - Primary .. .. ☐
   - Secondary (intermediate) .. .. .. ☐
   - Grammar .. .. ☐
   - Junior high .. .. ☐
   - Senior high .. .. ☐
   - All-through comprehensive .. .. .. ☐
   - Technical college/Institute of Further Education ☐

2. Sex:
   - Male .. .. ☐
   - Female .. .. ☐

3. Age last birthday:
   - 29 or under .. .. ☐
   - 30 - 39 .. .. ☐
   - 40 - 49 .. .. ☐
   - 50 or over .. .. ☐

4. Marital Status:
   - Married with children .. .. .. ☐
   - Married without children .. .. .. ☐
   - Single .. .. ☐

5. Present teaching post:
   - Head/Principal .. .. ☐
   - Deputy Head, Senior Master/Mistress .. ☐
   - Head of Department .. .. ☐
   - Other Scale post .. .. ☐
   - No Scale post .. .. ☐

Leave blank

6. Experience in type of school other than that in which currently employed:

- In no other .. .. ☐
- In primary .. .. ☐
- In secondary (intermediate) .. .. .. ☐
- In grammar .. .. ☐
- In junior high .. .. ☐
- In senior high .. .. ☐
- In all-through comprehensive .. .. .. ☐
- In technical college .. .. ☐

If other than the above,

Specify .....

7. Type of training for teaching:

- One-year teacher-training course .. .. ☐
- Two-year teacher-training course .. .. ☐
- Three-year teacher-training course .. ☐
- Four-year teacher-training course .. ☐
- Degree(s) without teacher-training .. ☐
- Degree(s) and teacher-training .. .. ☐

If none of the above,

Specify .....

8. Total experience as a teacher (excluding gaps):

- less than one school year .. .. .. ☐
- one to five years .. .. ☐
- six to ten years .. .. ☐
- over ten years .. .. ☐

9. With respect to the ability range current within this school are you this year mainly teaching classes containing:

- (a) ablest pupils .. .. ☐
- (b) average pupils .. .. ☐
- (c) less able pupils .. .. ☐
- (d) unstreamed classes .. .. ☐

OR any combination of (a), (b) and (c) ☐

10. What subject (if in post-primary school) or age-level (if in primary school) are you mainly teaching this year?

Specify .....

Table B.1: Varimax factor solution for Teachers' Opinions (N = 2794)

Items		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
The Present System	1	72	-03	-01	01	02	00	-24	-06	01	-17	-10	05	-07	00	-01
	2	60	-01	-02	04	01	-07	-28	11	-03	-10	-26	08	-08	-02	00
	3	57	-05	-05	03	-08	01	-49	-04	02	00	-02	09	03	-02	05
	4	-24	-04	01	00	01	06	20	-12	00	07	57	-07	10	-08	07
	5	59	-12	07	06	-05	08	-07	-02	-14	-02	02	-03	-02	02	08
	6	-26	06	04	02	00	02	75	12	04	-06	11	03	-05	-02	05
	7	-48	-05	17	01	-02	03	19	20	03	13	15	11	10	-08	06
	8	68	00	-02	10	-02	-01	-19	-02	-02	-03	-14	14	-03	07	00
	9	-32	09	05	02	04	03	71	15	03	-08	11	00	-03	-04	00
	10	63	-01	-17	02	03	-01	-06	-14	06	-04	-11	-06	03	01	-02
	11	-11	10	03	05	-01	01	-02	06	02	72	01	-06	05	07	-09
	12	23	-34	07	-03	01	-02	-41	07	09	-11	-02	13	-06	-18	14
	13	-44	09	02	-11	-02	-02	16	28	00	15	42	-02	00	-03	09
	14	44	-06	01	07	-05	04	-05	11	-35	-01	-11	13	-15	-22	14
	15	61	-02	-04	04	-01	-03	-07	04	02	-41	-05	05	-11	-04	08
	16	-15	03	14	03	-03	02	46	09	00	20	22	-08	07	10	04
	17	-43	10	13	06	-06	04	52	17	-02	08	29	-03	11	-02	01
	18	-25	09	08	04	00	07	19	13	20	01	47	03	17	-02	-08
	19	-31	-01	16	02	03	05	17	13	01	-01	63	-07	10	01	04
	20	-25	05	06	07	01	03	13	06	28	01	45	13	14	20	-16
	21	67	00	-16	08	01	01	-13	-16	08	03	-10	11	04	04	-02
Organis-ational Alternatives	1	08	82	-03	09	03	01	14	09	02	02	07	-01	-01	00	-04
	2	16	-36	04	-03	02	-02	02	01	-01	00	13	-03	05	-02	-05
	3	06	81	01	06	03	-02	09	09	01	06	09	00	01	-01	-02
	4	07	80	03	10	01	05	11	11	02	03	13	-05	03	02	02
	5	12	-58	04	02	06	00	-01	06	36	02	11	05	-08	-02	09
	6	12	-65	06	00	-08	08	04	06	04	-02	00	-04	05	03	-08
	7	-19	10	-10	53	-06	01	03	30	-25	-13	21	07	-04	21	-03
	8	09	-13	09	-17	03	04	04	-03	65	14	16	-06	-08	-19	14
	9	26	-15	24	-40	06	04	00	-07	34	19	-07	-11	04	-31	12
	10	12	05	-05	81	03	05	00	-03	-02	13	-02	00	06	-09	08
	11	17	04	-03	81	00	05	01	-08	05	12	-04	-03	04	-15	06
	12	14	13	-07	63	03	02	08	02	-07	-09	-01	02	-04	21	-06

Table B.1· cont'd.

Items		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
	13	-09	-05	66	02	04	10	11	14	15	05	10	-03	06	02	02
	14	15	-07	-77	16	00	05	-02	03	02	00	00	04	04	01	03
	15	-15	-06	74	-03	-01	04	09	21	03	11	06	07	-01	-03	05
	16	35	-06	-43	11	03	08	-01	07	11	18	-01	08	-06	02	10
	17	-06	00	06	-05	-05	79	04	04	06	-06	06	-01	01	-08	04
	18	10	-12	-04	11	-02	69	-01	-01	00	08	01	01	06	14	-02
	19	-04	-02	03	04	25	66	07	12	-04	03	07	00	00	-02	13
	20	-15	13	06	-03	03	29	01	50	14	-10	-09	-04	08	09	-14
Purposes	1	00	04	03	05	-05	02	23	39	04	01	-12	-49	22	10	-01
and	2	18	05	-01	07	07	07	11	20	03	04	-14	-25	18	47	02
Processes	3	43	-01	-25	01	01	00	03	-15	13	06	-25	17	03	20	-08
	4	03	-03	-04	00	-01	01	-04	16	69	-07	00	05	-04	10	-02
	5	-30	01	18	02	11	03	14	54	10	-01	02	-01	08	-06	14
	6	-29	-06	12	12	21	-04	-02	10	-02	02	14	00	15	16	34
	7	-19	00	09	06	53	04	-02	05	16	-04	11	-12	12	-02	17
	8	-43	09	11	05	03	07	47	15	-05	11	17	-04	13	00	08
	9	26	-02	-03	-02	-01	03	-01	-09	-02	12	08	08	-20	59	27
	10	53	-07	-11	05	09	01	-11	-27	08	-04	-12	23	03	-22	00
	11	01	05	-03	-03	83	03	01	04	-01	03	-03	04	05	04	-08
	12	41	02	-02	14	12	03	02	-08	10	-12	-20	39	22	12	10
	13	-33	03	00	05	05	04	16	08	03	50	13	11	07	-01	12
	14	-47	11	07	-06	-01	01	14	36	01	11	37	03	02	-01	13
	15	03	06	-02	01	-01	12	04	07	06	-06	-02	-07	06	08	76
	16	56	00	-38	00	04	-04	-10	-14	12	14	-19	13	02	10	-09
	17	35	-04	-10	04	-06	-02	09	12	07	-01	-26	44	26	-05	14
	18	40	-08	-20	-02	23	-04	-02	-03	-01	26	23	-14	-10	-02	-09
	19	31	01	-03	02	00	02	-05	03	-04	01	-01	57	-07	-01	-20
	20	-35	08	01	-08	01	03	13	46	01	18	28	09	01	00	00
	21	-07	00	13	06	13	01	16	49	00	10	11	-05	07	01	09
	22	54	02	-37	-02	04	-05	-13	-09	12	13	-13	15	01	01	-06
	23	-04	-01	04	00	10	01	07	15	-13	04	06	-11	67	-08	04
	24	-09	-02	-01	03	03	08	-03	02	04	08	25	07	62	06	05
	25	17	05	-02	00	74	07	02	08	-05	01	-04	07	-01	00	00
Percentage variance		11.6	4.9	3.9	3.6	2.7	2.6	4.4	3.2	2.6	2.3	3.8	2.1	2.1	1.8	1.8

Table B.2: Percent variation explained by 9 sets of predictors for 13 attitude scales

Predictors	d.f.	13 attitude scales as criteria: 1	2	3	4	5	6	7	8	9	10	11	12	13
Type of school	6/2764	*** 6.02	0.20	*** 2.11	*** 1.98	* 0.48	*** 1.07	*** 3.59	*** 3.92	*** 2.60	*** 1.24	*** 3.95	*** 0.93	*** 1.21
Size of school	1/2764	* 0.14	* 0.18	0.01	** 0.14	** 0.32	0.05	* 0.16	0.08	0.01	*** 0.72	0.11	0.00	0.00
Controlled/voluntary	1/2764	** 1.52	* 0.19	0.12	0.05	*** 3.68	0.05	*** 2.04	** 0.33	* 0.20	*** 3.28	*** 0.82	*** 1.26	* 0.21
Area Boards	4/2764	** 0.46	** 0.47	*** 0.89	** 0.50	*** 1.31	0.33	* 0.41	** 0.57	* 0.35	* 0.39	0.05	0.27	** 0.53
Sex of teacher	1/2764	*** 1.65	0.04	0.11	*** 0.57	*** 0.47	0.00	0.02	* 0.13	*** 1.01	*** 1.47	*** 1.84	* 0.13	* 0.23
Teaching post	4/2764	0.23	*** 0.68	*** 0.86	0.05	0.11	0.01	0.02	0.11	0.13	0.06	0.23	0.06	0.25
Teacher training	5/2764	*** 0.74	*** 0.71	0.30	0.12	0.30	0.32	*** 0.76	0.15	0.24	* 0.48	*** 1.11	*** 0.79	0.30
Teaching experience	3/2764	*** 2.18	*** 0.75	** 0.48	0.09	*** 1.41	0.06	*** 1.23	*** 1.57	** 0.39	** 0.48	*** 1.80	*** 2.08	0.05
Type of class	4/2764	0.18	* 0.41	0.10	0.05	0.11	0.14	0.29	0.17	0.20	** 0.60	* 0.38	0.24	0.13
All predictors	29/2764	*** 16.24	*** 5.53	*** 6.02	*** 5.61	*** 9.94	*** 2.42	*** 11.65	*** 9.04	*** 7.92	*** 9.67	*** 12.75	*** 7.54	*** 4.98

Significance of F: * for P ≤ 0.05; ** for P ≤ 0.01; *** for P ≤ 0.001

Table B.3. The Present System: *percentage distribution of ranks awarded by each of seven teacher groups.*

Rank	P (n = 724)	SI (n = 670)	G (n = 524)	JH (n = 155)	SH (n = 83)	BL (n = 180)	FE (n = 458)
1	13.1	11.8	34.4	19.4	38.6	11.1	20.5
2	7.0	5.5	15.3	3.9	19.3	7.2	8.1
3	9.5	6.1	9.5	5.8	6.0	7.8	9.4
4	5.0	6.6	6.3	8.4	4.8	5.0	9.6
5	7.0	8.5	4.0	9.0	3.6	4.4	7.2
6	7.0	6.9	4.0	9.7	1.2	6.1	5.7
7	6.4	7.0	4.0	7.7	6.0	6.1	5.7
8	13.0	13.3	8.2	14.2	4.8	11.7	10.3
9	29.4	31.3	11.3	20.6	14.5	40.6	21.2
Unranked	2.5	3.0	3.1	1.3	1.2	0.0	2.4

Table B.4. The Middle School followed by Selection: *percentage distribution of ranks awarded by each of seven teacher groups.*

Rank	P (n = 724)	SI (n = 670)	G (n = 524)	JH (n = 155)	SH (n = 83)	BL (n = 180)	FE (n = 458)
1	21.3	10.9	11.6	9.0	14.5	8.9	12.7
2	13.4	13.6	20.6	8.4	18.1	12.2	16.8
3	6.9	6.6	16.0	3.9	10.8	4.4	7.4
4	5.4	7.5	8.8	8.4	15.7	5.0	7.6
5	6.5	6.6	6.7	5.2	4.8	6.7	9.6
6	7.2	6.7	7.8	9.0	9.6	6.1	9.4
7	15.2	17.3	10.1	21.9	8.4	18.9	13.5
8	16.7	21.0	9.7	19.4	9.6	31.7	14.8
9	4.7	6.7	5.2	12.9	6.0	6.1	5.0
Unranked	2.8	3.1	3.4	1.9	2.4	0.0	3.1

Table B.5. The Middle School without selection: *percentage distribution of ranks awarded by each of seven teacher groups.*

Rank	P (n = 724)	SI (n = 670)	G (n = 524)	JH (n = 155)	SH (n = 83)	BL (n = 180)	FE (n = 458)
1	4.6	4.3	2.1	3.2	2.4	5.0	1.5
2	6.4	4.0	3.1	3.9	7.2	5.6	2.8
3	6.2	5.8	4.8	11.0	3.6	6.7	3.1
4	10.9	11.2	8.0	7.1	6.0	11.1	10.3
5	13.5	16.0	10.7	11.0	16.9	17.8	11.1
6	19.3	17.9	17.6	17.4	16.9	15.0	22.5
7	17.1	18.7	21.4	14.8	26.5	20.0	25.3
8	13.4	12.4	20.8	21.9	13.3	13.9	14.4
9	5.7	5.8	7.4	7.7	4.8	4.4	5.7
Unranked	2.9	3.9	4.2	1.9	2.4	0.6	3.3

Table B.6. Non-selective two-tier system: *percentage distribution of ranks awarded by each of seven teacher groups.*

Rank	P (n = 724)	SI (n = 670)	G (n = 524)	JH (n = 155)	SH (n = 83)	BL (n = 180)	FE (n = 458)
1	3.6	3.3	3.1	9.0	6.0	2.2	2.8
2	9.5	7.3	5.2	13.5	8.4	3.9	4.8
3	7.6	7.3	5.0	14.8	6.0	7.8	8.5
4	16.6	16.6	10.5	15.5	13.3	17.2	12.7
5	15.6	15.5	10.9	12.3	10.8	21.1	18.6
6	14.5	19.1	16.8	13.5	14.5	16.7	18.1
7	17.3	11.2	18.9	11.6	10.8	9.4	17.2
8	8.6	10.7	15.6	5.2	10.8	12.2	11.1
9	3.7	5.2	9.9	3.9	15.7	8.9	2.8
Unranked	3.0	3.7	4.2	0.6	3.6	0.6	3.3

Table B.7. Selective two-tier system: *percentage distribution of ranks awarded by each of seven teacher groups.*

Rank	P *(n = 724)*	SI *(n = 670)*	G *(n = 524)*	JH *(n = 155)*	SH *(n = 83)*	BL *(n = 180)*	FE *(n = 458)*
1	18.2	15.4	9.9	24.5	12.0	9.4	12.2
2	16.3	8.5	11.8	14.8	14.5	7.2	11.1
3	17.5	12.8	19.7	9.7	20.5	10.6	18.1
4	12.2	11.3	15.5	14.2	8.4	12.8	16.4
5	10.5	14.8	16.0	16.1	15.7	20.0	12.4
6	10.9	16.3	12.0	6.5	8.4	20.6	15.1
7	7.9	11.5	6.7	5.2	7.2	12.8	7.2
8	3.3	3.7	3.6	3.9	9.6	5.0	3.5
9	0.1	2.1	1.0	3.2	1.2	1.7	1.3
Unranked	3.0	3.6	3.8	1.9	2.4	0.0	0.4

Table B.8. 11-16 with dual transfer: *percentage distribution of ranks awarded by each of seven teacher groups.*

Rank	P *(n = 724)*	SI *(n = 670)*	G *(n = 524)*	JH *(n = 155)*	SH *(n = 83)*	BL *(n = 180)*	FE *(n = 458)*
1	11.9	13.3	6.5	7.7	1.2	7.8	25.1
2	18.5	21.9	12.0	23.2	9.6	16.1	22.5
3	18.6	18.5	13.5	15.5	16.9	26.7	17.5
4	17.3	14.6	19.1	14.8	18.1	15.0	13.8
5	13.4	10.4	14.5	17.4	10.8	12.8	9.0
6	9.4	7.2	11.5	9.7	20.5	10.6	4.1
7	5.8	6.3	9.7	6.5	9.6	4.4	3.9
8	2.6	3.3	6.5	1.9	9.6	5.0	1.3
9	0.3	0.9	2.7	1.9	1.2	1.7	0.4
Unranked	2.2	3.6	4.0	1.3	2.4	0.0	2.4

Table B.9. 11-16 with single transfer: *percentage distribution of ranks awarded by each of seven teacher groups.*

Rank	P (n = 724)	SI (n = 670)	G (n = 524)	JH (n = 155)	SH (n = 83)	BL (n = 180)	FE (n = 458)
1	10.9	15.7	6.7	16.8	3.6	15.6	10.0
2	18.5	24.6	12.8	17.4	7.2	22.2	25.3
3	15.6	17.3	9.4	12.9	8.4	16.7	14.2
4	15.6	17.2	13.9	13.5	15.7	15.6	14.0
5	14.5	10.0	18.5	11.6	18.1	7.2	13.1
6	9.3	7.6	13.2	9.7	13.3	9.4	5.9
7	7.5	7.5	9.4	11.0	14.5	8.9	6.6
8	5.1	4.0	8.8	5.2	13.3	2.8	6.1
9	0.6	0.3	3.4	0.6	3.6	1.1	1.7
Unranked	2.5	3.3	4.0	1.3	2.4	0.6	3.1

Table B.10 11-18 all through: *percentage distribution of ranks awarded by each of seven teacher groups.*

Rank	P (n = 724)	SI (n = 670)	G (n = 524)	JH (n = 155)	SH (n = 83)	BL (n = 180)	FE (n = 458)
1	8.4	14.6	5.9	7.1	13.3	26.7	8.7
2	4.0	6.1	5.2	6.5	8.4	15.6	3.5
3	8.8	13.4	8.6	16.1	19.3	7.8	10.3
4	6.1	8.8	6.3	8.4	6.0	7.2	5.0
5	9.1	6.9	7.6	8.4	7.2	3.9	7.0
6	8.4	6.4	6.1	10.3	7.2	5.0	4.8
7	9.8	6.3	8.6	11.6	7.2	8.9	6.8
8	15.3	13.7	11.3	12.9	8.4	6.1	17.9
9	26.9	20.0	35.9	16.8	21.7	17.8	33.4
Unranked	3.0	3.7	4.6	1.9	1.2	1.1	2.6

Table B.11. Differing forms: *percentage distribution of ranks awarded by each of seven teacher groups.*

Rank	P *(n = 724)*	SI *(n = 670)*	G *(n = 524)*	JH *(n = 155)*	SH *(n = 83)*	BL *(n = 180)*	FE *(n = 458)*
1	5.9	7.6	17.2	3.2	7.2	12.8	4.1
2	4.0	5.7	10.7	6.5	6.0	8.9	2.6
3	6.2	8.5	9.7	9.0	6.0	11.1	9.6
4	8.4	9.9	7.4	8.4	9.6	11.1	7.9
5	7.2	7.3	6.9	6.5	9.6	6.1	8.3
6	10.8	8.1	7.6	12.3	6.0	10.0	10.7
7	10.2	10.3	6.5	7.7	7.2	9.4	10.5
8	18.8	14.3	11.5	13.5	18.1	12.2	17.2
9	25.1	23.7	18.7	28.4	27.7	17.8	25.5
Unranked	3.3	4.6	3.8	4.5	2.4	0.6	3.5

Table B.12. Percent variation explained by 9 sets of predictors for 9 alternative structures.

Predictors	d.f.	9 Alternative structures as criteria: 1	2	3	4	5	6	7	8	9
Type of school	6/2664	*** 6.99	*** 3.53	*** 0.91	*** 2.18	*** 1.65	*** 4.29	*** 4.38	*** 4.14	*** 1.62
Size of school	1/2664	0.10	0.06	0.14	0.04	0.00	0.07	0.02	0.11	0.20
Controlled/voluntary	1/2664	*** 2.17	0.07	*** 0.85	** 0.32	0.05	*** 0.39	*** 0.67	** 0.31	*** 0.45
Area Boards	4/2664	** 0.45	*** 1.05	0.30	* 0.34	0.09	0.19	0.18	*** 1.61	* 0.39
Sex of teacher	1/2664	*** 0.50	*** 1.16	*** 0.47	*** 0.47	*** 0.82	** 0.34	** 0.28	*** 0.74	0.03
Teaching post	4/2664	0.17	* 0.39	* 0.38	0.24	0.07	0.10	0.11	** 0.50	*** 0.68
Teacher training	5/2664	*** 1.01	* 0.43	*** 0.75	** 0.68	0.09	0.09	0.29	* 0.26	*** 0.25
Teaching experience	3/2664	*** 0.97	* 0.07	0.44	0.08	0.07	0.25	*** 0.70	* 0.30	*** 0.91
Type of class	4/2664	0.09	* 0.36	0.25	0.13	0.18	0.10	0.30	0.13	0.14
All Effects	29/2664	*** 15.75	*** 8.96	*** 6.64	*** 5.80	*** 4.66	*** 8.07	*** 7.89	*** 10.21	*** 7.64

Significance of F: * for $P \leq 0.05$; ** for $P \leq 0.01$; *** for $P \leq 0.001$